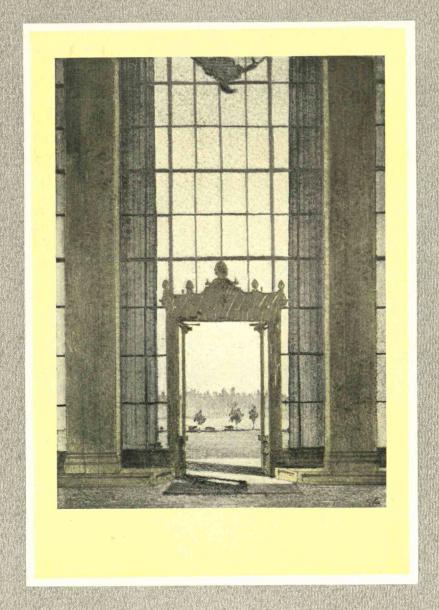
THE TECHNOLOGY REVIEW



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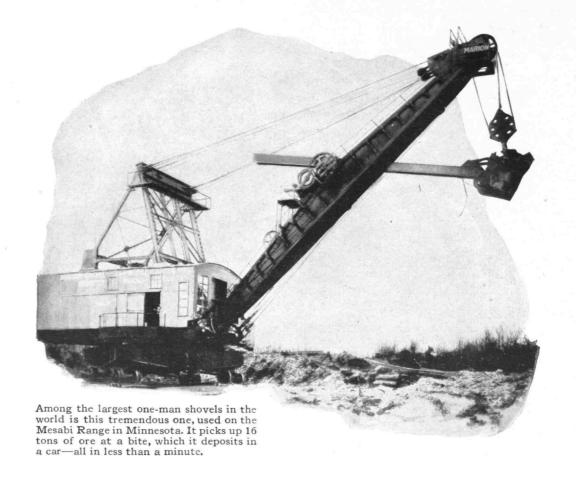
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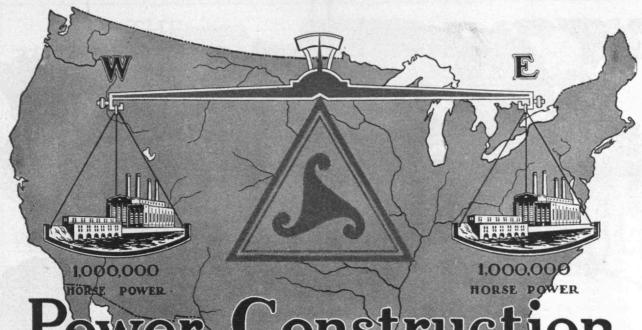


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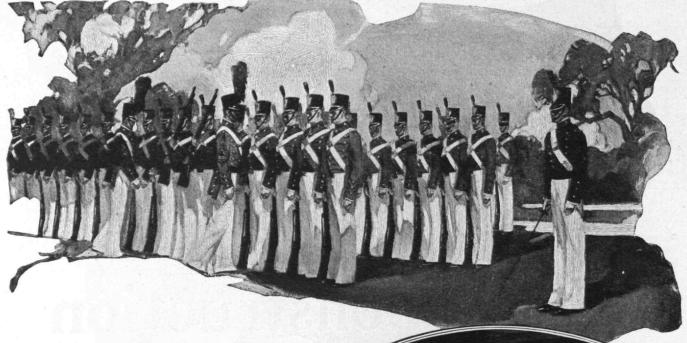
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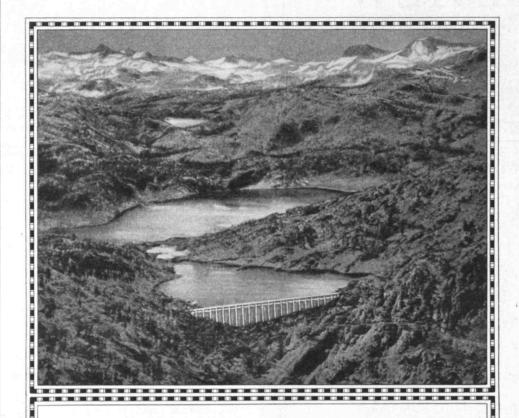
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VOLUME XXVIII

DECEMBER, 1925

111

NUMBER 2

The Past Month

TELCOME news comes that the great dining hall of the new Boston Chamber of Commerce will be the scene of the next annual banquet of the Alumni Association.

The dinner comes on the evening of January 9, 1926, and arrangements have been completed for the use of the various reception rooms where every one will have an opportunity to span the years with talk of other days.

The toastmaster will be Colonel Charles Hayden, '90, President of the Alumni Association, who promises he will have speakers of national prominence for the evening. President Stratton, of course, will speak, and it is

planned to show the Zizz film of the 1925 All-Technology Reunion during the evening. Instead of the conventional band or orchestra program, an innovation in the form of an organ recital will be given. Other divertissements are still to be announced.

This year's committee on assemblies, in charge of the banquet, consists of Wallace C. Brackett, '95, chairman; George B. Glidden, '93; Frank A. Bourne, '95; Edward L. Moreland, '07; and Orville B. Denison, '11.

LEUTENANT James H. Doolittle, S.M. '24, United States Army racing pilot, won the Jacques Schneider trophy for seaplanes when he drove a little black Curtiss biplane at a speed of 232.593 milesper-hour in the recent races at Baltimore.

The skill of the pilot in rounding the pylons marking the 350 kilometre triangular course had much to do in the setting up of claims for new world's seaplane records of 234.772 miles-per-hour for 100 kilo-

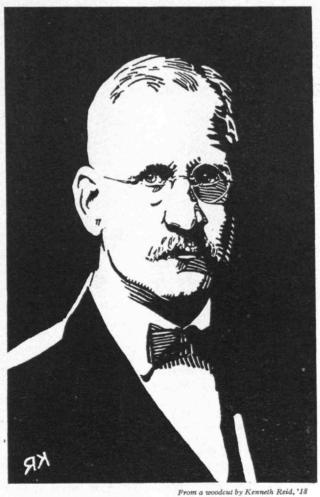
metres, 234.352 miles-per-hour for 200 kilometres, and a maximum speed of 235.036 miles-per-hour, which the flyer made on the last lap of the race. The wings of the little racing plane were almost vertical when Lieutenant Doolittle banked sharply to round the pylons. And it darted away like a big dragon fly when he leveled out for the straight-away flight to the next marker. Not once during the seven laps of the race did the steady roar of his engine falter.

The records which Lieutenant Doolittle broke were made by Lieutenant Ralph A. Ofstie, the Navy pilot, who last year flew 100 kilometres at a speed of 178.25

miles-per-hour, and 200 kilometres at the same speed. He also bettered the speed of Captain Henry C. Biard who flew England's Napier seaplane on a trial flight in England at a speed of 226.752 miles-per-hour. The same machine was entered for this year's Schneider race, but was wrecked in a trial flight. The British, however, won second place when Captain Hubert Broad, driving a Gloster-Napier III biplane, attained a speed of 199.169 after Lieutenants Ralph A. Ofstie and George T. Cuddihy, Navy pilots who had led him, were forced down by engine trouble.

The day after the Schneider race Lieutenant Doolittle catapulted his little black racer 1300 feet out of the sky and leveling out darted over a three kilometre course at a speed of 245.713 miles-per-hour, a new world's record for the distance.

Lieutenant Doolittle was graduated from the University of California in 1922 and came to the Institute in October of the following year. He was awarded the



PROFESSOR SAMUEL C. PRESCOTT, '94

Head of the Department of Biology and Public Health, who as VicePresident of the Alumni Association, presided at the 115th meeting

Γ.

degree of Master of Science in June, 1924, and in November of the same year was appointed a Fellow in Aëronautical Engineering. Last June he received the degree of Doctor of Science in Aëronautical Engineering, the fourth to be given by the Institute.

HEMISTRY'S influence in modern civilization will be one of the leading topics for discussion in the conference of the Institute of Politics at Williamstown, Mass., next year, Dr. James F. Norris, President of the American Chemical Society, and Professor of Organic Chemistry at the Institute, announced recently.

"The Rôle of Chemistry in the Future Affairs of the World" has been chosen by the board of advisors of the Institute of Politics as the central theme for the discussions, which will be organized by the American Chemical Society.

"While the Institute of Politics has discussed topics closely allied to chemistry," Dr. Norris said, "they have

appeared under other headings. In 1923 considerable attention was given to natural resources, rubber and nitrates obtaining special mention. Last year mineral resources proved of interest, but there was no concerted effort to have the chemists of this and other countries present to participate in the deliberations.

"In 1926 it is proposed to discuss such important topics as future food supplies, energy — present and future sources and their utilization — chemistry in conservation stressing wastes in industry and increased efficiency in production, synthetic versus natural products, chemical developments in their relation to labor, chemistry in world domination through commerce and in national defense and the relation of chemistry to world health.

"The conference at the Institute of Politics will have to do with chemistry as a dominating factor in these various fields rather than with that type of discussion which would characterize a meeting of the American Chemical Society. We have insisted that there is a side



"WE POINT WITH PRIDE" - "WE VIEW WITH ALARM"

A selection from the press clippings inspired by the innocent action of the undergraduate Institute Committee in allowing women guests attending student dances to smoke in the lounges of Walker Memorial. Some appliand, others condemn, many misconstrue. One syndicate story blames it on the Executive Committee of the Corporation. The London Times attributes the ruling to the President's office. Not since the "Back Bay Vice" crusade a year ago has such a newspaper stir about collegiate habits come to pass. In the present instance publicity was not the desideratum



WINS SCHNEIDER CUP RACE AND ESTABLISHES NEW WORLD'S SEAPLANE RECORD

Lt. James H. Doolittle, S.M. '24, in the upper photograph (at the left in knickers), with the Army seaplane in which he won for the United States a second leg on the Jacques Schneider trophy. At the right he is shown after the race. (See the story on page 69)

to our work which will appeal to those in political as well as economic authority and this is our opportunity to make good that assertion.

"The conference will attract authorities on many subjects from various parts of the world. It is a place frankly to lay upon the table for open discussion in the friendliest spirit some problems that might elsewhere be handled with silk gloves. For example, chemical warfare can be discussed at Williamstown in such a way as to put the facts and truth before the public and allow them to reach a decision on the evidence presented."

JUNIORS and Seniors in the Institute's Course in Mechanical Engineering are now working under a new time study system which it is believed will eliminate overloads and bring about a more equable distribution of studies throughout the year.

There has been a tendency in the past toward periodic overloads at the end of each term, partially due to poor planning in assignment work and the very human student failing of putting things off until the last moment.

The matter was laid before Professor Edward F. Miller, '86, Head of the Department, and a committee consisting of two members of the Faculty and three seniors was appointed to seek a remedy. Acting upon their recommendations, Professor Miller recently issued suggestions to instructors in third and fourth year subjects. These already are bearing fruit.

He suggested first that time assignments for prob-



lems be sufficient to allow the majority of the class to complete work of good passing grade within the prescribed limit. Problem statements are more carefully propounded and where outside research and library reference is necessary more time is allowed for completion of the work.

A chart is being kept in headquarters of the Department and members of the staff are required to plot their estimates of the time required for problems against the time actually taken. By this graph it is hoped to gain more knowledge of the amount of time necessary for various assignments.

SENSIBLE to the sad and often-voiced truth that Technology men tend to display few graces or abilities in public speech, however informal, the Department of English and History, with the beginning of this academic year, extended to every section of the freshman and sophomore class a procedure hitherto confined to a few special courses. The inauguration of a series of "Discussion Groups" will, it is hoped, serve to take off some of the rough edge that so often tends to manifest itself when an engineer finds himself forced ro rise and report his findings, discuss a paper or (even) move an adjournment.

The device of instruction is semi-tutorial. Regular recitation sections of some thirty men are divided, on one of three recitation days, into three sub-groups of ten men each, who meet at different hours of the same day. During the course of the hour, every man of the ten must deliver, in language supposed to be accurate, perspicuous, persuasive and appropriate, a three minute discourse (subject, mood, method, differ with the instructor) to his fellows. He must have prepared his topic, be ready to defend his thesis, have some scheme for projecting his personality, voice and idea beyond the front row of his theatre. Thus go thirty minutes.

In the remaining ones of the hour, every man having, in rotation, had his say, his fellows are encouraged to seize upon his offering and dismember it if they can. No frailty is to pass notice, no error go uncorrected,

if nine eyes and ears can seek it out.

Last spring, the Corporation, highly interested in the proposal of Professor H. G. Pearson, Head of the Department, authorized the increase of the teaching staff to permit the innovation. This fall, the Department, augmented by six new instructors, is putting 1200 students through the strenuous process outlined. Happily, there is in the new departure, nothing of the elder day technique of courses in "Public Speaking." There is no drill in Pecksniffian oratory. Students are permitted neither to thunder nor to coo. The sober purpose is to train the student to meet the emergency of public speech with a poise worthy of an engineer in a crisis.

PROFESSOR Robert E. Rogers of The Review Staff presided at the largest gathering of the Faculty Club in its entire history when 173 members and their guests dined at the University Club on October 22. There were two principal speakers: Dr. Harry W. Tyler, '84, President of the Faculty Club, who gave an account of his summer motoring adventures in France and Switzerland, and Professor James F. Norris, the substance of whose remarks appeared in the November number of The Review under the title of "Chemistry and Royalty."

At luncheon on the Monday after this meeting, October 26, C. E. Seashore, Dean of the Graduate School of the University of Iowa was entertained. Three days later Dr. P. W. Kuo, President of the National Southeastern University and Chairman of the Foreign Relations Committee of the National Association for Advancement of Education in China, spoke of his country's problems. He advocated tariff autonomy for China (collection and regulation of her customs were handed over to the British seventy-odd years ago), and was hopeful of good results from the Nine-Power Customs Conference now assembled at Peking as provided for by the Washington Conference of 1921. Evidently his wishes will come to pass for under date of November 3 the Associated Press reported that all the powers represented in the tariff Conference on that day accepted the autonomy principle and the United States

delegation submitted a detailed plan for putting it into effect not later than January 1, 1929. On November 12 Dr. Kuo repeated his remarks on "The Acid Test of 1925" at a dinner of *The Nation*, the chairman being its Editor, Oswald Garrison Villard.

MOMMANDER John Rodgers, pioneer of the Navy's unsuccessful attempt to fly from San Francisco to Hawaii, came to the Institute on November 3, to tell the story of the flight of the great seaplane, PN-9 No. 1, in which he and his crew drifted before the trade winds of the Pacific for nine days after their fuel supply was exhausted.

Every inch a man of the sea, bronzed, blue-eyed, straight



THREE ACES HONORED

Godfrey L. Cabot, '81, President of the National Aëronautic Association, presents cups to the ranking flyers of three nations at New York on October 10. Left to right: Mr. Cabot; Captain Rickenbacker of the United States; Carl F. Schory, Secretary of the contest committee of the N. A. A.; Porter H. Adams, '14, chairman of the executive committee of the N. A. A.; Colonel William A. Bishop of Great Britain; Captain René Fonck of France. (See the story on page 75)

lipped, Commander Rodgers, obviously reluctant to speak of his own exploits, described the flight as one might speak of a routine tour of duty at sea. His was a simple account, devoid of superlatives, stripped of much of its inherent drama, a story in which danger and hunger and thirst were discounted with smiles. He spoke slowly as one more accustomed to action than speech.

Commander Rodgers ruthlessly destroyed some of

the choice heartthrobs injected into press accounts of the flight. The little still, which his mother was supposed to have given him, he purchased himself at the suggestion of his father. It was used, but with small success. Tropical rain storms supplied drinking water, which was caught in the fabric of the plane's wings. Corned beef, the "canned willie" of the Army and Navy, proved a most unpalatable ration and attempts to eat it brought unpleasant reactions,

Commander Rodgers said with a reminiscent grin. Explaining the failure of the fleet of searching ships to locate the PN-9 No. 1, he said the vessels were operated on the assumption that the seaplane was

drifting faster than it actually did.

His description of sighting a ship which passed within a few miles of the helpless seaplane without seeing the frantic signals of its crew, carried a hint of their feeling of despair when the vessel slowly sank over the horizon and left them alone again.

What the crew of the seaplane feared more than anything else was that they might drift between some of the islands of the Hawaiian group into the broad Pacific beyond. "In that case Manila was the next stop,"

Rodgers said.

Upon his return to this country, Commander Rodgers said he was told by almost everyone he met that they had been praying for the safety of the crew of the PN-9 No. 1, and that he finally came to the conclusion he had very little to do with the survival of the seaplane.

Commander Rodgers's story differed only in the manner of telling from the article by Lieutenant B. J. Connell, S. M., '25, which appeared in the November issue

of The Review.

HERE may be engineers who in their undergraduate days had little interest in the so-called cultural subjects of the curriculum, but if the audience that listened to Walter Prichard Eaton in an address at Technology recently is any criterion, the students of today have no such failing.

Mr. Eaton, writer and critic known too well to need further introduction, attacked slang in which he said many of the modern plays are written. He contrasted the English of today with the writings of the time of Sheridan, whose plays, Mr. Eaton pointed out, survive because of the perfection of the English in which they were written.

"English is permanent and slang is ephemeral.



AN UNUSUAL CROSS COUNTRY FINISH

Five 1929 harriers in a dead heat registering a perfect score in the freshman dual
race with Brown on November 7 at Franklin Park. Some spurted near the finish,
some delayed, until all five were abreast and in step to cross the line

slang is ephemeral. Shakespeare's plays were written," the speaker said, "to please an audience which appreciated subtle wit as well as clowning." He then traced the history of the theatre in the middle of the seventeenth century when the Puritan revolution "clamped the lid down on the drama."

The stage took on a new lease of life when Charles II was restored to the throne. At that time London boasted two theatres, while during the reign of Queen Elizabeth six

during the reign of Queen Elizabeth six did what today would be called "big time" business. The court of Charles had the effect of making the theatre a pleasure from which all but the favored were excluded, and what democracy there was in earlier days was for the time stifled.

"The problem of the playwright of today," Mr. Eaton said, "is to make a play that accurately reflects life of the day in language that will be understood a generation hence without the aid of a glossary."

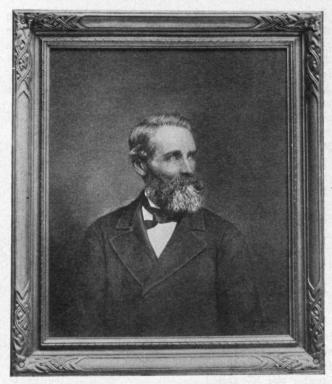
EXTER P. COOPER, engineer of the proposed Passamaquoddy Bay tide power project, addressed the student chapter of the American Society of Civil Engineers of Technology on November 13, in Huntington Hall at a meeting open to the public. He unfolded his plans for a power development, which if carried out, will rank with the greatest in the world.

Mr. Cooper was in charge of construction of the famous Keokuk Dam of which his brother, Hugh

Cooper, was chief engineer.

The tidal power project in Passamaquoddy Bay, which is part of the Bay of Fundy, calls for a series of dams and locks between the mainland and islands of the bay in the vicinity of Eastport and Lubec, Maine, and the New Brunswick shore to the North. It is estimated the cost of the work would be at least \$75,000,000, and it would take four years to complete. The locks and dams would provide a great tidal pool more than 100 square miles in area with a lesser pool of 50 square miles, which would insure a continuous head for hydro-generating units.





MORE BACKGROUND FOR THE INSTITUTE

Thomas Sterry Hunt: Professor of Geology from 1871 to 1878

William Parsons Atkinson: Professor of English Literature from 1865 to 1890

The portraits painted by Horace R. Burdick, and presented to the Institute by William E. Nickerson, '75

PROFESSOR Dugald C. Jackson, Head of the Department of Electrical Engineering, is one of a group of leading engineers and scientists who are deeply interested in the establishment in Washington of a National Museum of Engineering and Industry.

Other nations have long had such museums for preserving their heirlooms and it seems certain that the United States, too, will soon have a building suitable for such a valuable collection.

A drive for \$10,000,000 for construction and partial endowment of the museum is now in progress and plans indicate it will stand near the Smithsonian Institution, part of the exhibits of which it would absorb.

Engineers see in such a museum not only a place in which adequately to preserve the works of the nation for the future, but a classroom for students, an exhibition of the past and of the present in industry and engineering that should serve as an inspiration for the engineers of tomorrow.

England has its Science Museum in London, where perhaps the finest collection of early locomotives, cars and transportation equipment in the world is to be seen. The industrial museums in Vienna and Munich both house remarkable exhibits and are used regularly for classes in industrial technique.

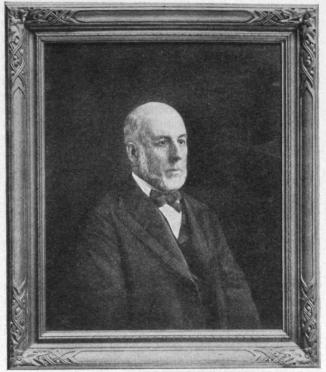
Washington was chosen as the site for the proposed museum because it is believed more people would visit it there than in any other city in the country. It would become the depository for machinery, weapons, agricultural implements, models, records of patents and such valuable documents as relate to engineering and industry.

N October 26, the Alumni Council met in the Faculty Room of Walker Memorial for its first deliberation of the 1925–26 season, the meeting being the 115th recorded by history. In the absence of Charles Hayden, '90, President of the Association, Professor Samuel C. Prescott, '94, Vice-President, presided, and did it with an ease, deftness and urbanity altogether notable.

Most notable, perhaps, in the evening, were the words of I. W. Litchfield, '85, who did not hesitate to say that the Council was languishing for lack of something constructive to do, and had been devoting altogether too much time, of recent meetings, to its own entertainment, and not enough to a consideration of what good it might do. No one sought to controvert the statement.

By precedent, this meeting, being the first of the year, contained upon its program the "interchange of greetings between incoming and outgoing term members of the Corporation." Upon this particular evening, however, the complete ritual was never brought off, since Outgoing-Member Franklin T. Miller, '95, alone of the total six, was present. He spoke engagingly, no whit hampered by the lack of incoming members to greet.

A cosmopolitan air was lent to the evening by the presence, as guests, of Charles W. Goodale, '75, of Butte, Montana, and J. Lloyd Wayne 3d, '96, of Indianapolis. Mr. Goodale gave a few reminiscences of life in the earlier days in the West, and Mr. Wayne, although asserting that he spoke for "the same reason they put parsley on fish" roused interest in the topic of the Technology Clubs Associated, and what its proper functions might be. Mr. Wayne's consideration of this is official (he is Chairman of a special committee





ADDED FACULTY PORTRAITS FOR WALKER SINCE LAST NOTE

Charles Robert Cross, '70: Head of the Department of Physics from 1877 to 1917

William Ripley Nichols, '69: Professor of Chemistry from 1869 to 1886

The portraits painted by Horace R. Burdick, and presented to the Institute by William E. Nickerson, '75

appointed to consider the problem) and is antecedent to the meeting of the Clubs in Cincinnati in the spring of 1926, for which plans have already been commenced.

As close to the business session of the evening, Professor Prescott announced the appointment of a special committee of the Alumni Association to meet with a committee of the Corporation to consider plans for a stimulation of alumni interest in enrollments. The alumni committee consists of Professor R. T. Haslam, '11, Professor Prescott and Mr. Denison.

A showing of the Zizz motion picture film in the main hall of Walker Memorial ended the evening.

ODFREY L. CABOT, '81, has been reëlected President of the National Aëronautic Association. It was a unanimous vote, a tribute, in fact, to his keen interest and activity in aëronautical affairs. He has created the office of Assistant to the President and offered the post to Lieutenant Commander Porter H. Adams, '14, himself a keen student of aviation.

Mr. Cabot recently at a dinner of the Association in New York on October 10, presented trophies symbolical of aviation to Captain Eddie Rickenbacker, the American ace; Colonel William A. Bishop of Canada, premier British ace; and Captain René Fonck, ranking French flyer.

The National Aëronautic Association, which is the representative in the United States of the Fédération Aëronautique Internationale, now numbers among its board of governors: Donald W. Douglas, '14, designer of the world flight cruisers, who represents California; C. T. Ludington, '24, of Pennsylvania; and Professor Edward P. Warner, S. M. '17, Head of the Institute's

Course in Aëronautical Engineering, who is the representative from Massachusetts. Mr. Adams is a governor at large.

PAUL W. LITCHFIELD, '96, Vice-President of the Goodyear Tire and Rubber Company recently celebrated the building of the seventy-five millionth automobile tire, and the completion of twenty-five years of service with the company by making a gift of \$25,000 to the Welfare Committee of the Goodyear Industrial Assembly, an organization of employees.

More and more, as the great industries delve deeper in the important question of human relationship, ways are found to help and encourage, recognize and reward employees. The Goodyear Company under the active leadership and deep interest of Mr. Litchfield is among many large organizations which know the value of such work, and employees of the company are benefiting by a policy which rewards achievement in service, gives help to those who need it, and provides unusual educational opportunities.

In 1914 Mr. Litchfield gave \$100,000 to establish a fund for the welfare of employees.

Editorial Comment

Why Do We Have an Alumni Association?

The first results of a wise investigation will, barring the off-chance, have made themselves felt by the time these words see the December light. As they are written, the joint meeting of the Executive Committee of the Corporation and the Alumni Association, called at the suggestion of President Charles Hayden, '90, of the Association, is still in the future - a future which by reason of it seems brighter than anything in the im-

mediate past.

The expressed desire of Mr. Hayden in calling together these bodies is to formulate a plan under which the Alumni Association can function to serve some definite end in the Institute's scheme of things. It is not of course to be inferred from this that the Association in all the years of its existence has not yet arrived at the knowledge of what it is for. There is, however, another inference almost inescapable: the Association, once an active, alert, aggressive source of counsel and stimulation for the Institute and its policies, seems to have been drifting in the past few years, largely because of the lassitude of its executive arm, the Council, into a situation in which the purpose of existence seems difficult to determine; and it has drifted so far that it is necessary for a new and alert administration to pause for the task of taking a completely new set of bearings. That this is finally to be done is a cause for much congratulation.

Why do we have alumni associations? Some colleges have them because there must be some official channel for "Old Grad" to state his opinion of the football coaching system. Others have them for the rather negative reason that it seems a wrong and wasteful thing to let four years of close association between institution and individual rust away after graduation. By and large, perhaps, in the liberal colleges of the country, there is no one purpose that the aggregation of alumni serves, save as the nucleus of a mailing list in times of financial drives. A given institution may have a given problem in which its association will be most utilitarian, but there is no stock answer to fit

the question.

The foregoing has been said of the non-technical college. Our own present inaction is the more unfortunate because in a technical school, as in any other professional institution, there is a service of the most consummate importance which a close-knit, well informed alumni body can invariably perform. That is the

service of liaison, of reconnaissance.

The liberal college should be, if it makes any pretense of living up to its name, an institution with a certain pride in holding itself aloof from the contacts of everyday life. There is no such thing as an intensive liberal education. The word liberal connotes a certain detachment, leisure, downright impracticality, if you like. The liberal college cannot be a forcing bed for culture: it must give the student access to a wide selection of precious fruits of the mind which it knows will unfortunately, in the bustle of post-college days, seldom again be available.

In a sense, then, the college performs its highest service when it holds its students a remove or so from blunt practicality. Consider for a moment how diametrically opposed is the aim of the professional school, whether of engineering or business, law or medicine. Here the avowed intent is to acquaint the student with every trick of his trade, so that the practice of his profession may be easy and familiar to him when his

It is not necessary to labor over the connection be-

tween this aim and the service which an association of graduates can render, if they will, in carrying it out. The technical school can make technologists from its students only by an unceasing vigilance regarding the needs of industry; the aims, the problems, the new methods which newly rise every day in the feverish arena of applied science. The school must not follow industry, but neither can it aspire to the ideal of continually leading it. Only by a constant adjustment of the interplay between the study of applied science and the utilization of it can an institution of technical learn-

ing hope to keep itself in a tenable position.

It is not to be supposed, of course, that any teacher worth his salt is at the moment sitting back and waiting for the alumni to advise him how to teach his subject. Professor C.-E. A. Winslow, '98, of Yale, paid his respects to that idea at Dr. Stratton's inaugural in words that have not yet been equalled. When we speak of alumni advice and guidance, we mean nothing of a petty or meddling variety. We are harking back, for example, to a day not very much older, when alumni interest in the problems of education was sufficient to cause the Council to present to the Corporation a report which virtually established the present day course in Engineering Administration. It would be pleasant to see the counterpart of that interest now.

There is every argument for such an interest. Technology is concerned today with problems just as many, just as vexing, as any she has known. There is being established a new option in Shipping Management. What has the Council done in that? There is projected a new course or option in Building Construction. What has the Council done in that? A course in Gas and Fuel Engineering stands newly established this year. What has the Council done in that? The answer to all three questions is that the Council has never even talked about them. It did listen to a brief presentation of the latter on one occasion, but it seemed weary and it said

Try another tack. There is much student and faculty discussion everywhere at the present time on special courses for gifted students, as opposed to the old dead level system. The Institute is cautiously experimenting in one or two departments this year. The Council, then, was alive to all this, and sought to help in the establishment of the experiment? Frankly it has yet given no indication that it ever heard of such a thing.

The Institute enrollment has been going through some curious shrinkage process during the past four years. The Council is aware and active to suggest a new and more discriminating policy of admission? Yes, the Council is aware, but its talk on the topic has been none too brilliant ("More publicity") and its activity has been

no more than verbal.

Occasionally an apologist for this state of affairs will grant the inaction (having no option) and will suggest that it arises from a present natural lack of excitement on the horizon. It is true that we have no merger fight to spur us on, but anyone sincerely anxious to find a Cause, can find a dozen in fifteen minutes. The Institute has established no new major course since 1913. Does this mean that our curriculum is still ahead of the times ten years after its last revision, or that the question of revision is overdue? Has aëronautics reached its complete majority? Does the importance of the ceramic industries justify a new offshoot from the physics department? The Council can suggest. Stabilization of enrollment with a higher ratio of applicants to admission is highly desirable. It is for the Council to suggest how the alumni can be of help. New methods and equipment for teaching need discussion; new modes of entrance need the chance of trial.

Moreover, there are humbler fields for activity which no less need champions. The Institute has held its new land west of Massachusetts Avenue for almost two years without so much as leveling it off. It was purchased because of a crying need of space for future development. Even the Institute buildings as conceived in Dr. Maclaurin's time are less than half finished, yet some chemical laboratories are still housed in basements and in wooden shacks. The largest auditorium will not seat a single undergraduate class. Here acceleration rather than instigation is the alumni cue. And if the Council must have an immediately definite and concrete aim, why should we not hear of something about a memorial to President Rogers or President Maclaurin?

In a paragraph or so it is easily possible, you see, to suggest more possible lines of alumni action than the Council could follow in five years. Small excuse then, for the present inaction, save for a disinclination to pull at the laboring oar as in an earlier day. President Hayden's committee meeting is urgently to be desired. The Council of the past prevented the Institute's complete dissolution; it helped President Maclaurin in his superhuman task of establishing the school in new soil and with a new purpose; it toiled at the task of raising four millions of dollars in the exciting days of the endowment drive; it helped in the emergency of turning the Institute from the purposes of peace to those of war . . . but the intellectual high point at its meeting in October was to gather together and watch a showing of the Zizz reunion film. That was about all. The change for the better which now, apparently, is coming, is coming just in time.

Field Day in the News

The enterprising reader will gather from another column the news that Field Day 1925 was prefaced and punctured with a few old-time manifestations of the desire to die for dear old Siwash. The night before was lit with a certain amount of red fire, and Petey Simmons, redivivous, trod the boards for an hour or so.

It was all very childish, of course. On the evening before Field Day a band of sophomores had gathered for some fiendish purpose in the Hangar Gym, and being discovered by freshman scouts, were asked in unison by a sizable fraction of the yearling class to disperse. The sophomore answer to this ultimatum was considered frivolous and unsatisfactory, whereat it became the obviously sacred duty of the insulted group to protect their corporate honor without regard to cost in blood or treasure. The freshmen fell back a few paces, formed a column of squads, and marched, in perfect order, through one of the doors of the gymnasium without bothering to open it first.

We have only the most fragmentary reports of what followed. The general staffs of both contenders seem to

have insisted that all occurrences were in accord with their best strategic plans. No reliable correspondents were present however, and our careful columns can therefore record nothing save the testimony, given the day following by Major Albert S. Smith, Superintendent of Buildings and Power, that a number of shirts, collars, ties, et al, with now and then a more intimate garment, were salvaged some hours later by his reconstruction unit, and that it was necessary to replace several panes of glass in the hangar which had apparently been shattered by some mysterious concussion.

The one open clash of the campaign is alleged to have been followed by a certain amount of guerilla warfare. Songs of victory are reported to have been sung in the vicinity of Harvard Square. Later it was learned through an authoritative spokesman that a certain amount of traffic difficulty developed at Tremont and Boylston Streets, Boston, and that the Boston Elevated was persuaded to the use of several of its vehicles in an emer-

gency transport service. . . .

Now other things being equal, it should be the duty of a conservative graduate publication to deplore this outbreak of Balkan spirit in the younger classes. Normally, the course of editorial criticism would be perfectly clear. The hostilities of the evenings of November 6 and 7 were something less than admirable, and it does seem a pity that alone among institutions near Metropolitan Boston, Technology should be the one whose students once a year seek to sack the city. But after all, the incidentals to the legalized conflict of the freshmen and sophomores on Field Day were nothing more than the kind of thing from which the late George Fitch drew material for his superb stories. Freshwater stuff, certainly, for these sophisticated days, but nothing into which to read a menace.

Note then, the press dispatch widely current in the newspapers of the day following, and emanating from

the Boston Bureau of the United Press:

"Cambridge, Mass. Nov. 6 (By U. P.). — One student was injured, the gymnasium and ballroom were damaged, the fire-fighting system was put out of order, and an automobile was wrecked, in a student riot, which lasted most of the night at the Massachusetts Institute of Technology. . . .

"A police riot squad that intervened was unable to end the battle, which spread to various parts of the city, where sophomores were pursued by the freshmen."

Well, the injuries were confined to bumps, with a scraped shin or so; the gymnasium was left intact save for one door, replaced next day; the "ballroom" of the dispatch does not exist; the "firefighting system" neither of Cambridge nor the Institute was to the slightest extent disturbed, and the "wrecked automobile" was a 1915 Ford owned corporately by the sophomore class, and dismembered by a group of them as a sacrificial rite. No police riot squad was ever called, nor did actions make one necessary.

Beyond these details, the dispatch of the United Press appears to be authentic, so far as we can tell. It would seem to us that in these complex days a news gathering agency has troubles enough without going to the difficulty and expense of broadcasting so minutely documented a report of things that never happened.

"Have Pride in Your Profession"

Good counsel for every Technology man, given by one of the country's most illustrious engineers

NGINEERING is a profession so old that it has never been traced to its beginnings. When

By JOHN HAYS HAMMOND Aldred Lecturer on October 16

A FIRM historical balance, a sure purpose, sound logic, a shrewd selection

and a style impressive yet with no hint of the

ponderous or formal - these are a few of

the qualities which John Hays Hammond

brings to the writing of the article which The

Review takes pride in presenting this month

to its readers.

100,000 men! He would then be in somewhat the same situation as the engineers of the fourth dynasty in

we get back to the misty boundary between the earliest accurate historical records and that vague time which we know as "prehistory," we find extraordinary monuments to the genius of engineering which have already been standing for centuries. All the recent progress of archaeEgypt, who, nevertheless, performed the feat which has endured from their day to ours through all the growth of our civilization.

ological discoveries has not brought our knowledge of the pyramids of Egypt, for instance, be-

The study of engineering archaeology is so fascinating that many men have devoted a large part

of their lives to it and numberless books have been written on it. Here it can only be touched on in the light that it throws on the instinct to build and to use the resources of the earth which has persisted through the life of mankind. This instinct has been so strong that most amazing difficulties have been met and overcome, and the development we have today is the result of a very slow but perfectly irresistible persistence.

The study of these

things is interesting, not

so much for its technical

information as for the

sense of the value of his

profession it gives to the

man who is about to be-

come an engineer. The

realization that it is one of

the oldest, most dignified,

most vitally important to

life of all the professions,

and that the work of en-

gineering has been the ex-

pression of one of the

yond the speculative stage, yet they are among the engineering marvels of all time. The methods employed in the construction of the Grand Canal of China, a waterway 700 miles long with 75 locks, built 30 centuries ago, can only be surmised. The prehistoric draining of Lake Copaias by a tunnel 4 miles long, of finished workmanship, is shrouded in mystery. The triliths of Stone-

This article was delivered in spoken form by Mr. Hammond at the first Aldred Lecture of the year on October 16. Although it was addressed primarily to young men on no more than the threshold of engineering practice, it contains, like all soundly conceived advice to youth, much that will prove stimulating and encouraging to older practitioners - much that will help the engineer, however veteran, to see more clearly the road be is traveling. Mr. Hammond's article deals broadly, but never loosely or inexactly, with the philosophies of engineering: the power, position and prestige of the man engaged in one of the most vital of present day professions. It is "The Sons of Martha" in prose.

henge, the erection of the Egyptian Obelisks, the building of the great monuments recently discovered in Yucatan, Peru and Mexico, the tunnel under the Euphrates driven probably 4000 years ago, and countless other examples, prove that not only was engineering exceedingly important in prehistoric times but that it was

most fundamental of instincts known to the human race, is a very real inspiration.

practised on a scale and with an ingenuity that is perfectly astounding in the light of our modern knowledge

Have pride in your profession!

of applied science.

After this glance at the achievements of antiquity, it seems paradoxical to say that the engineering profession is still in its infancy. Yet this statement is undoubtedly true. The development during the past century is out of all proportion to its progress during all the preceding ages, and the discoveries made during this period have opened broad vistas of infinite length in all directions. Today as a result of scientific research and discovery, I would say almost contemporaneous discovery, the avenues to professional opportunity are more numerous than ever before afforded the engineer. The railroad, the wide use of steel, the methods of construction which depend on the use of steam machinery, the use of electricity for light, heat, power and

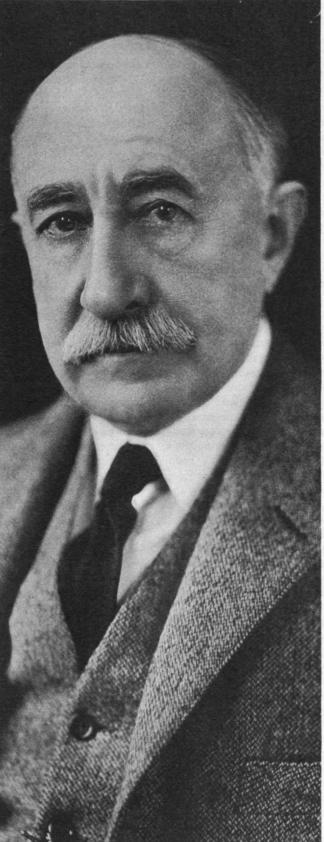
The modern engineer, given the job of building a Cheops pyramid, with all the new methods of construction and all the best inventions of modern machinery; drills and dynamite to quarry the rock, railroads and steam navigation to transport it and cranes to lift it into place, would realize that he was confronted with a problem that would require his most concentrated effort. Imagine his position, however, if you take from him every device based on such simple mechanical movements as that of the wheel and pulley, all power derived from harnessing the forces of nature and give him nothing but the crudest cutting tools, wooden sledges, ropes, the level and inclined plane, and the services of communication, the internal-combustion engine, the submarine, the aëroplane and radio, are products of a century of unparalleled activity. Yet no one can assume that any of these has attained perfection — far from it indeed!

With each new invention has come realization of unlimited possibilities for improvement and endless ramifications. The telegraph suggested the telephone; both led to the wireless; the balloon made possible the dirigible, which in turn suggested the heavier-than-air machine, made feasible by the invention of the gas-engine.

Throughout all this progress we see a suggestion of ideas breeding ideas and each multiplying tenfold; of necessity giving birth to new invention, until today we are confronted with so many possibilities that we have not anything like the necessary number of engineers to realize them.

Two classes of engineers are required in industry: one with a broad general technical education supplemented by business training to direct industrial operations, and a second class as specialists to solve technical problems and to supervise the technical details of operation.

The future of the world's commerce upon which is based its prosperity depends upon the development of the resources of the "backward countries," in South America, Africa and Asia. These countries have great potential wealth. There is hardly an inhabited region on the globe and, indeed, many regions now uninhabited that cannot be made to produce commodities essential to other parts of the world. There would be in short everything neces-



@ Harris & Ewing

JOHN HAYS HAMMOND

First speaker of the year in the now firmly established Aldred Lectures, who contributed for the benefit of his undergraduate audience much sage advice of equal interest and significance for the student or practitioner of engineering

sary for the comfort and well-being of the 1,700,000-000 people who inhabit the earth if the world's natural resources were adequately utilized.

We are living in an age of wasted opportunity. There are, to illustrate, upon this earth hundreds of millions of human beings who merely eke out a miserable existence owing to the lack of opportunity to engage in productive industry. These people are today a liability but tomorrow could be converted into an asset in the ledger of civilization, and the engineer is the agency through which this great work must be accomplished.

Consider for a moment what has been done in Africa by the exploitation of its mineral wealth, followed by the development of its agricultural resources. But a few years ago much of this region was indeed darkest Africa given up to barbarism. Today it is the scene of important industrial operations giving work to a large number of engineers and providing employment for many thousands of others who, in that way, are the beneficiaries of the engineer's professional skill. A great transformation has been effected and the savage tribes which hitherto constantly waged internecine warfare, characterized by unspeakable atrocities, are now working peacefully, profitably, and happily in the development of the country. In this way engineers constitute the vanguard of civilization.

Think of the great undeveloped resources of these backward nations, with their teeming though idle populations, and visualize if you can the enormous volume of trade and commerce which would result from the

enhanced purchasing power and the higher standard of living of the inhabitants, if these nations were adequately developed. What is required is capital for the exploitation of these countries, together with facilities for the transportation of their products to markets where they would be welcomed. To realize this aspiration would require an immense expenditure of capital, it is true. America is the only nation competent, for the present at least, to undertake the financing of these great projects. It must, of course, be done gradually but much can be accomplished within the near future. Here is an unbounded field of opportunity for the American engineer.

For the young man who is by temperament vigorous, adventurous, and aggressive, who loves a roving life in quest of new things, whose instincts are curious, inventive and creative, I can think of no profession more inspiring than one in which he is constantly in close association and conflict with the elemental forces whose conquest is for the betterment of mankind.

Our material civilization, the product of a few intensely active years, has made us, whether we like it or not, entirely dependent on the engineer. If we eliminate any one of the engineering elements which underlie our present civilization the entire structure collapses.

The engineer has played an indispensable rôle in time of peace, and one of the lessons we learned from the World War was that on the bloody battlefield victory depended primarily upon the achievement of the engineering profession. Had diplomacy shown the constructive efficiency which characterizes the engineering profession there is no doubt the war could have been averted.

It is a profession which, as I have said, strongly appeals to adventurous youth, whether in the discovery and development of the natural resources of remote regions, or at home in the field of applied science. It is a profession peculiarly broadening. An engineer is likely to be thrown into contact with every other sort of business and profession and into the comradeship of every condition of man. He is necessarily in cooperation with the business man, capitalist, the promoter, the manufacturer, the merchant, the industrial and commercial man; on the other hand he is always close to the laborer at every turn. He must work with men of other professions: the lawyer, who must instruct him as to mining laws, building laws and contracts; the architect with whom he may be in immediate collaboration; the physician who safeguards the health of his men or takes care of the sanitation of the community; the newspaper man who keeps the public informed as to the importance and success of his particular undertakings; the chemist, the statistician, the politician, the economist, even, in cases in which the engineer is more or less in charge of a large community (and this is not infrequent), the school teacher and the clergyman.

Again, engineering often takes a man into foreign lands where he must know the laws of the country and to some extent its government, the customs of the people, the language, the international relations with other countries, the history of the country, and especially its geography and physical aspects. If he is given important work abroad he will come to know foreign business con-

ditions and business methods, the economic situation, exchange, export and import trade, natural resources, the railroad and the shipping and thousands of other details which will give him a large international education, combining the knowledge of many professions.

One opportunity which in the past has been largely confined to the profession of the law will come in the future, I believe, to be more and more the engineer's. That is the opportunity of public life. The engineer is exceptionally well qualified for public life. From the inception his professional training has been along scientific lines. He has developed ability to think straight and clearly, as well as the sense of proportion which enables him to determine the relative importance of factors in the solution of great scientific problems. The engineer has been taught to seek the truth irrespective of consequences, and to have the courage of his convictions. His reputation depends upon the realization of his predictions. Sophistry has no place in engineering. Engineers are not privileged to urge extenuating circumstances to explain their failures, but are held strictly responsible. The lawyer may ascribe the loss of his case to an incompetent judge, or to a corrupt jury; the doctor the loss of his patient to the will of God; but, as I have said, the engineer cannot escape the odium of failure - he must make good.

For these reasons engineers in public life will be able to exert a most beneficent influence in counteracting that of demagogues, who are today beguiling the public with pleasing political panaceas.

The engineer who has been in charge of important work seems to me peculiarly well fitted for statesmanship. He has the knowledge and experience which present-day statesmanship requires. He knows men of all kinds. The problems of labor are familiar to him from first-hand experience. He knows much about business and business conditions. He has followed industrial development closely and knows a good deal of the country's resources. He is probably abreast of shipping, commerce, foreign trade conditions. If he has worked abroad he knows something of the temper of foreign peoples, international law and international relationships. He probably knows something about railroads. He has been dealing with things on a large scale. He is at once capable of big conceptions and practical in carrying them out. If he has been successful in engineering he is almost certain to be honest. If he has been in charge of large, difficult undertakings he is probably courageous. He is calm in crises, and is very unlikely to lose his head in confusing situations. Perhaps, most necessary of all, he knows human psychology and is a leader of men.

These are a few of the advantages. A volume of them might be written.

Now for the deficiencies which it will be the duty of the future members of the profession to overcome. Some are the faults of the engineers themselves, some are due to the public. One of the latter is lack of appreciation of the work of the engineer. Compared with the statesman or politician, his glory is very small in proportion to achievement. Very little newspaper space is given to the praise of the engineer. He works quietly and the public uses and enjoys the result of his labors, but takes for granted his part in them. His name does not appear.

Very few people, if asked offhand, could mention the names of the engineers who have been responsible for some of our greatest engineering feats. Ask the man in the street who was the engineer who built the first tunnels under the Hudson River. The name of the promoter of that enterprise will probably come instantly into his mind, but it is very likely that he has never heard the name of the engineer.

In the past the financial compensation which the engineer has received has been far below the importance of his achievement. This has been partly the engineer's fault; he has not demanded a proper compensation for his work, with the result that the capitalists and promoters for whom he works have fallen into a habit of paying him too little. For the good of his profession, the engineer must be more assertive, and insist upon a compensation commensurate with the importance of the work

and profit which accrues therefrom.

At the risk of the imputation of egotism I would like to say that I feel a pride, pardonable I trust, in having been instrumental in raising the professional price-level of mining engineers, by paying to my assistants fees and salaries commensurate with the service they rendered, and demanding for my own compensation, if not all, at least nearly all "the traffic would bear." I hope you will not ascribe to me the sordid ambition that this confession might imply, for no one has a greater appreciation than I have of the splendid work done by engineers for the service of humanity where there is no pecuniary recompense. But when there is to be a legitimate pecuniary compensation in connection with engineering undertakings of a commercial nature I wish to see the engineer justly rewarded for the service he renders.

The majority of vocations enjoy the privilege of collective bargaining, in which system I firmly believe, to protect the employee from the ruthlessness of the soulless corporation. Engineers are denied this adventitious aid, but why should they not avail themselves of some sort of gentlemen's agreement to secure the compensation due them, in so far as it does not contravene the

Sherman Anti-trust Law?

It is discouraging to see a promoter utterly ignorant of the elementary principles involved in a great engineering enterprise rake in enormous profit, while the engineer who has worked out the technical problems and who assumes responsibility for the success or failure of the enterprise receives but meager consideration and totally inadequate compensation. This is due to the fact that the promoter has business training — very often not even much of that — though the promoter does know how stock companies are floated and where he comes in. It is for this reason that I stress the importance of including in the curriculum of technical schools some subjects which will at least afford the engineer the basis of subsequent development of the business phase of his career. A tip in high finance must be used circumspectly.

The study of engineering is, I believe, the best preparation for a business career. It inculcates close reasoning; the appreciation of cause and effect, and clarity of thought. It gives, too, a sense of proper proportion, the power to analyze correctly the values of the various factors involved in sizing up commercial propositions.

We have notable examples of this in the careers of the

graduates of Technology. I recall to mind William C. Potter, ['97], who made his professional début under me as one of my assistants and, after having distinguished himself in his professional work, subsequently became one of the prominent bankers of the country. Another name comes to mind — that of General Coleman Du-Pont, ['84], who has made a brilliant success in business as well as in politics. You all know the splendid record of another distinguished alumnus, Charles A. Stone, ['88], the chief executive of many great engineering and financial enterprises. There are many others in this category whose names will occur to you.

With the proper development of the engineer along the line suggested his function would be greatly expanded. From a worker whose capacity is limited to the determination of technical questions, the engineer of today is coming to assume a greater economic importance in those branches of industry dependent upon engineer-

ing skill for their development.

He is indeed an engineer of limited usefulness who does not go further professionally than to submit a purely technical report on subjects presented for his consideration. Although he has the same responsibility as formerly in the solution of the technical problems involved, he is further expected, and should avail himself of the opportunity, to supplement his report with advice on the financial and commercial aspects of these problems, for the great majority of problems presented to the engineer ultimately involve the determination of the pecuniary relations of the propositions under consideration.

In this way the scope of the engineer will in the future be greatly extended, since it is an incontrovertible fact that a man equipped with a technical education, supplemented by a knowledge of business methods, is far better able to promote and to manage industrial enterprises than the so-called "practical man" of business. The college course of the future, therefore, should embrace the study of the fundamental principles of business. With this additional equipment the engineer could in time qualify for administrative work in his professional activities in which he would earn salaries far higher than those paid his strictly technical confrères.

The very best investment a young engineer could make would be to lay a broad general foundation upon which to build his education of a strictly technical nature. This he can do, in a large measure, by self-education if he has ambition. The higher the monument that

marks the success of the engineer the broader must be

Nothing is more false than the more or less prevailing belief that imagination is useful only to the poet, artist or philosopher and should be suppressed by the practical man as dangerous. The engineer, practical as he is, must at the same time be as much a dreamer as any of these if his work is of any magnitude. He must have the power to see a thing before it exists. In all his work of inventing and planning he must be able to see a need and its remedy before the need arises; he must forestall difficulties and overcome obstacles before they appear; but especially he must have the power to visualize the completed work in all its details, whether it be a new kind of valve or a suspension bridge. At each stage of the construction

he must be able to see in his mind's eye exactly how the work will look in the future.

In thinking ahead the engineer is like the chess player—always three or four moves ahead of the game. To the man who has imaginative capacity the habit of thinking comes quickly enough. It is a habit of supreme importance to the engineer.

An unfortunate condition — which is, however, improving — is the lack of general culture among many engineers. Of course in the preparation which requires long and highly specialized technical training there is a tendency to get into the technical part of it too early, thereby slighting some of the fundamental subjects in arts and letters reconomics, history, philosophy, govern-

ment and languages; in short, what are known as the humanities, which are essential to general culture.

The appeal of the necessity of engineering, the appeal of its adventure, of its unlimited opportunity, of its infinite reach, of the power of its achievement, are not for today alone. They are greater today than in the time of the Ptolemies, greater than a century, a half-century, even a decade ago. In time they will be greater still.

The record of achievement of the graduates of the Massachusetts Institute of Technology is unsurpassed, indeed unequalled, in many branches of engineering. This will serve as an inspiration, stimulating to future generations of Technology engineers to bring, by their accomplishments, fresh laurels to their renowned Alma Mater.

Church of St. Etienne du Mont

From a

portfolio of

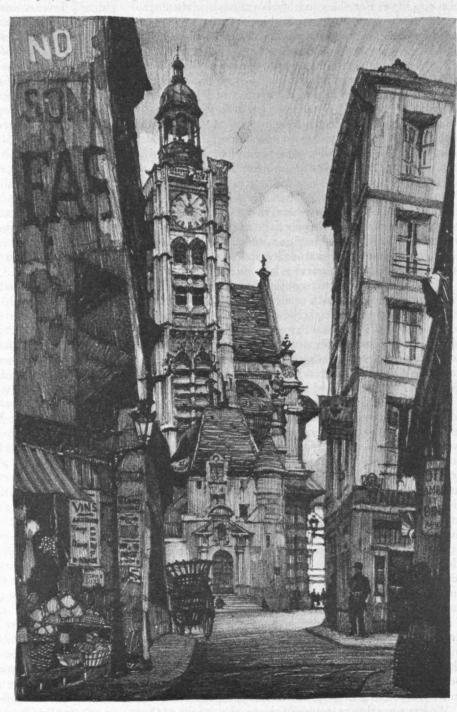
lithographs

by

Samuel

Chamberlain, '18







Timberline Trails

A mouth-watering description by a veteran mountaineer of the fascinations to be found in Glacier National Park

[Reprinted by permission of Country Life]

By HENRY H. SAYLOR, '02, F. R. G. S.

Former Editor of Country Life

GRINNELL PEAK

The famous mountain at the bead of the Many Glacier Valley as observed from Bull-Head Lake

CUT BANK PASS Looking down on Solomon's Bowl @ Hileman and one of the Morning Glory Lakes behind which lies Mt. James

SOFT patter of tiny footsteps across the waterproof silk cover of my sleeping bag, differing only slightly in degree from the drip of raindrops from the spruces that sheltered me, gave notice that the chipmunks were going about their early morning business, and that the call, "Everybody get up, get up, get up!" would soon usher in another day of hiking over the mountain trails of Glacier Park in Montana.

Down in the cities the fetid air of political conventions, the news of the oncoming heat wave and of the latest murder trial vied for the attention. With us, high up on the passes of the Continental Divide, the matters of real moment were: would we today succeed in getting close enough to a Rocky Mountain goat to photograph

him? - would the waters of this particular glacial lake be far enough above freezing to permit of a frenzied swim? — and had we stored away in our luncheon bag enough hardtack, cheese, and raisins to avert starvation until the far away evening meal?

There are only three personal matters of enduring interest in the high mountains - food, shelter, and warmth - and the first of these very often has to atone for a

lack of the other two.

The Sierra Club has trod the mountain trails every summer for twenty-three years. Heretofore these trails have always led through the high Sierra Nevada range in California. In 1924, for the first time, the club ventured from its well known haunts to Montana and explored the back country of Glacier National Park - our northernmost Rockies.

Robert Sterling Yard, in his Book of the National Parks, says that to speak of Glacier National Park as "the Canadian Rockies done on Grand Canyon colors" is to express a small part of a complicated fact. Perhaps the chief feature of this glorious country is not so much the glaciers, of which there are some sixty still to be seen on the high shoulders of the Continental Divide, but the gigantic carving of mountains into cirques, precipice walls, lake-studded valleys, and knife-edge ridges, all glowing in the soft colors of a Titian's palette. On the rocky mountain sides are buffs, dull greens, greenish browns, dark reds, lava blacks, with here and there an accent of gleaming white quartzite. On the higher peaks

> and in sheltered canyons there are the everlasting snows. Below each glacier and in many of the valleys are lakes of robin's-egg blue framed in the dark velvet of evergreen forests. And, throughout, one stu-

pendous flower garden.

The geologist will tell you one of the chief reasons why this country is one of the most interesting spots on the globe. He will explain that the earth's crust cracked here like the skin of an orange, and one side overlapped the other in such a way that you will find older strata on top of younger in unparalleled confusion. He can — and will — even tell you, in round millions of years, just how long this and other earth convulsions lasted. He will prove his claims in terms of argillites

and diorites, shales, granite, and

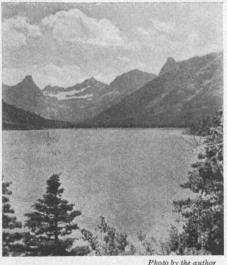


Photo by the author

THE BELLY RIVER COUNTRY Sunset from near the foot of Crossley Lake in the vast "back country" of Glacier Park rarely explored by the usual visitor



INDIAN PASS CAMP

Photo by the author

Which, with all its tents and livestock, is quite lost in the vast stretches of foreground meadow

quartzite, leaving you but small basis for contention. The visitor to the back country of Glacier National Park comes away with a bewildering sense of its many beauties — its glacial waters, its color, its gigantic rock

erosions, its vastness, and, by no means the least enduring, its flowercarpeted meadows lying snugly beside the gleaming slopes of snow.

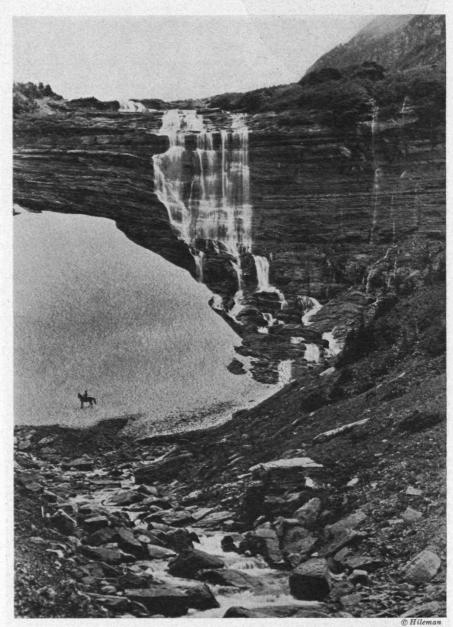
If you had been accustomed to taking a summer outing in comparatively small parties, you would perhaps have shared my misgivings as to the possibilities for equal enjoyment with a group of some two hundred men and women. After three weeks' experience on the trail, under all manner of conditions, those misgivings gave way to a profound conviction that the large group, when composed in large part of such seasoned mountaineers as those of the Sierra Club, has every advantage of the smaller party, with a great many additional points of superiority joined to the obvious one of economical operation.

If you happened to be most impressed, on a given day, with your lack of knowledge concerning the trees about you, you could join the ranks of those who were adding to and checking up their own wider knowledge along these lines. If the profusion of wild flowers caught your interest, you could travel with the botanists and learn from and with them. Then there was always the group interested mainly in animal life, or birds, always ready to welcome a neophyte to their circle. If you preferred to try for trout, there were other skilled anglers to guide you. And always there was the opportunity to join some small party which would scale the peaks, another which trailed the mountain sheep and goats, still another given over to the lure of the camera. You were ever tied to trails or interests not of

your own seeking — an obvious merit in the large and diversified party as against the customary small one.

Contrary to what one might expect of such a large body, its itinerary led farther into the less explored portions of the Park than that of the general run of small parties. The club's long experience in maintaining a notably successful commissary and pack train enabled it so to arrange its transportation of food and dunnage, and the occasional taking on of further food stores at certain cache points, that not the slightest break occurred in the well-oiled machinery. Members of the party might drop out, new ones join it, a pack animal or two be missing from the early morning round-up of the train, but the commissary functioned regularly, thoroughly, and with the greatest possible comfort to appetites made actually voracious by long hikes in the bracing mountain air.

On a typical day, the cooks wou'd be up at 3:30 or



MORNING EAGLE FALLS

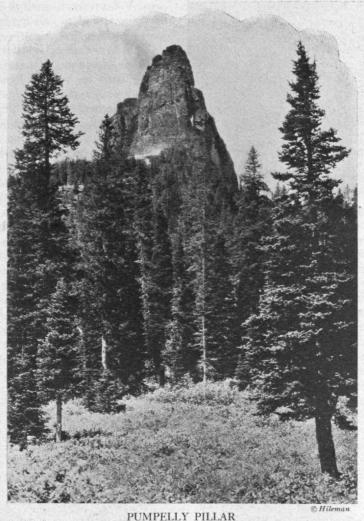
Above here winds the trail over Piegan Pass, the route from Many Glacier to Going-to-the-Sun

4 o'clock; the breakfast line formed an hour or so later to receive its allotments of hot stewed fruit, oatmeal and milk, pancakes and bacon, corned beef hash and coffee. By nine o'clock the stoves would be dismantled and cooled, the supplies lashed on the hundred-odd head of pack animals, and the groups of ten horses to two pack-wranglers would be departing, amid characteristic yells, whistles, and herd calls, to follow the trail of hikers and mounted members over some mountain pass to a new lake or stream beside which the next night would be spent.

Lunch was an individual or small group ceremony, consisting of the ship biscuit or Swedish bread, cheese, sliced corned beef loaf, dried fruit, chocolate, and raisins, prunes, or figs, with perhaps a cup of tea made over a small fire along the trail.

By three o'clock the pack train would be in

camp again, having traveled its ten to twenty miles, setting up its equipment, and at six the hungry line of some 280 mountain appetites, including packers, horse wranglers, and guests, would be appeased with a dinner



An upstanding remnant of a former geologic epoch on the valley floor, near Twin Falls and the foot of Upper Two Medicine Lake

macaroni, sausages, apple sauce, hot biscuit, and tea. Experience has shown that about three pounds of food per day per person is required,

of, say, thick soup,

boiled rice, stewed corn,

including the weight of boxes. The triple backbone of the menu is rice, beans, and soup, the last named carried partly in powder form - "sticks of dynamite." Potatoes, one of the mainstays of our food supply at home, cannot be successfully carried in large quantities. Milk is most easily transported in powder form, and butter is pasteurized and packed in tins. The party consumed something over a whole beef each week in addition to the hams, bacon, and tinned meats. A thousand pounds of hams and bacon were required for the trip, and a ton of sugar and substitute sweets such as syrup. In fair weather about a quarter of a pound of

sweets is required daily per person, but in cold and wet weather the need for these heat-forming foods rises to double that quantity.

The problem of vegetable food is solved by dehydrated



MT. MERRITT



ICEBERG LAKE

@ Hileman

A matutinal (and somewhat unusual) Fourth-of-July dip into the most famous of Park lakes, frozen over except in midsummer

beans, spinach, and brussels sprouts, all of which are brought back with water nearly to their original flavor and succulence. Corn does not come back so well and is carried in canned form instead.

At mess call, a double line formed to file past the serving kettles, each person picking up first a plate, knife, fork, and tin cup in addition to the cup and spoon which each member kept with him for more frequent use. Volunteers helped to serve from the respective containers and to call for fresh supplies as these were doled out.

The dish-washing line formed soon afterward, when each member availed himself of the bucket of hot soapy water with its wooden handled mop, and the boiling rinsing pail, and stacked his plate, cup, knife, and fork on a stretched canvas to dry of their own accord. One soon learned that the knife and fork could easily be spared, particularly if one sharpened one side of his spoon, for cutting meat, and a tin cup could serve very satisfactorily in turn, without intermediate washing, for soup, coffee, and dessert.

So much for the food supply, which I have given its rightful place before all else. In addition the pack train carried an individual dunnage bag for each member of the party. Its weight was limited strictly to forty pounds, which total was occasionally checked up on the scales before it could be put on the pile for packing. Into this bag went everything in the way of shelter, bed roll, extra clothing, and supplies that was not carried on the owner's back — or in his saddle bag if he were mounted. And many a repacking and transfer to knapsack load became necessary because a member had approached too closely the maximum weight and, after a rainy night, had taken on an extra few pounds of water.



BEAR GRASS

© Hileman

Individual tents of the lightest waterproof material were used for the most part, with a sprinkling of the somewhat heavier army pup tents. These latter can be

shared by two people, each carrying half.

The variety of tent design and material was a wonderful sight to behold. There were tents with integral floors and tents without; tepee shapes; square, oblong and octagonal tents; white tents, yellow tents, black tents; tents with poles and tents suspended by ropes; tents with windows and tents with mesh-covered openings. And these tents were well tested by rain, sleet, hail, and snow. A few were dry inside; most of them were not. If all of the complaining tent owners kept up the full pressure of their indignation upon their return home, I doubt not that many makers of so-called water-proof tents have gone out of business.

If you had asked any member of the party at random, how his or her tent served, you would probably have started a long tale of woe. Since you have not asked me but are entirely at my mercy, I will tell you about my.

own sad case.

I had put off buying a tent until the last moment before starting West, not knowing until then that I should have no trail companion with whom I might share my shelter. Dropping into a store where army supplies were sold, I bought a pup tent and packed it in my dunnage bag without unfolding it - unpardonable error No. 1. On arriving at our first camp, I unpacked it to find that it was a very old used tent, so feeble that it was ripped completely down both sides. I walked five miles back to Belton, thinking to buy another one, only to find that none was to be had. However, the storekeeper volunteered to telephone down to the next town and order one sent up on the night train. It arrived the following day, was sent to camp, and when opened up was found to consist of two unmatchable halves. The row of buttons and buttonholes along the ridge had been spaced in different factories and apparently on radically different systems of mensuration. Perhaps one was in inches, the other in centimeters; at all events they did not match. The tent was returned to be exchanged for a perfect one, but it was the last one in Montana apparently and could not be replaced.

The torn one first purchased would have to be repaired and made to serve. I used up my entire stock of adhesive plaster in strapping the ribs on both sides, ironing them into close contact with a hot flat stone. The job was more or less of a triumph of human ingenuity as matched against hard luck, not to say poor judgment. For two or three nights the tent served its purpose admirably. Then came the first of several rainy nights and the adhesive plaster began to weaken. I sewed it up, with an amount of back-breaking, fingerpricking toil worthy of a greater cause, but to no avail. New weaknesses developed faster than the supply of adhesive could be made effective as reinforcement, and, after waking up one morning on Brown Pass with a twoinch blanket of snow completing its disintegration, I came to the rather necessary conclusion that I really needed no tent, as such, but could do very nicely with the wreckage as a top covering laid flat over my sleepingbag. So that is my story of tentage.

The main dependence for sleeping comfort fell naturally upon sleeping bags of one general type. It consisted of a down or wool quilted comforter folded over upon itself, sewed up into a bag shape and slipped into a waterproof covering of oiled silk.

The first task of the hiker, arrived at a new camp site, was to find how the camp had been allotted - men on this side, women on the other side, commissary in the front center, on lake or creek, with the few married couples back of that. Picking one's dunnage bag out of the huge pile unloaded from the pack animals, in which search one was aided by a distinctive stripe of color or the boldly lettered name of the owner, one shouldered the load and marched off to find an acceptable sleeping site in the allotted territory. The shelter of a closely spaced stand of trees would make a good find, particularly if the carpet of needles were thick enough to soften the protuberances or exposed roots and imbedded rocks. If hemlock or balsam boughs were to be had, these were laid shingle-wise over the chosen spot to form the ideal mattress. Oftener, we were forced to content ourselves with a fairly well leveled carpet of pine or fir needles.

The sleeping spot arranged, and bed unrolled upon it, one stretched a rope between two nearby trees on which to hang the pocket-roll — a square of denim in the serried flaps of which was stored all of one's extra clothing, toilet articles, photographic films, trout flies,

map, bandanas, and what not.

All that was needed to make complete this lodging for the night was to tack up one's little steel mirror, blow up the air pillow, pocket the flashlight and see that it was working, and, most important, perhaps, of all, look carefully about for trees and other landmarks by which to return more or less directly home from the

campfire after dark.

The camp being established, soon after noon in most cases, one took up his trout rod, or his photographic outfit, or his tin box for botanical specimens, or merely his topographic map, and wandered afield in the pursuit of his hobby. Perhaps a swim offered the strongest appeal, or an accumulation of laundry conspired with a sense of duty to put all other activities aside for that

particular afternoon.

Whatever the occupation, and however far afield the campers may have strayed, there was always an unmistakable convergence upon the commissary as six o'clock drew near. Laggards along the trail quickened their tired footsteps, the botanists and geologists hurried in with their specimens, the photographers trudged in, tripods over their shoulders, the fisherman proudly bore in their catch of eastern brook trout, Dolly Vardens, grayling.

Mixed with the pungent odor of burning pine there

floated abroad the delicate aroma of goulash!

The impatient line formed like a whiplash. Tin cups were slipped from belts, spoons were withdrawn from boot tops. The volunteer serving force, armed with ladles, took up stations behind the double line of supply kettles. The word is given, and on moves the chow line, nicely balancing an unbearably hot tin cup of soup, another of tea, and a plate heaped high with a steaming assortment of almost pure proteins, as its individual members find a vacant square foot of ground upon which

to squat, circumspectly, juggler-like — voracious, yet not spilling so much as one precious baked bean.

Supper was no sooner over than the first-year members — "freshmen" — had gathered wood and started the huge campfire, which nightly formed the magnet to draw all within the circle of its comforting blaze.

"Tap" — Mr. Claire S. Tappan, genial president of the Sierra Club, and genius in the fine art of welding together in cheerful camaraderie the entire footsore, back-aching party of doctors, college presidents, horse wranglers, students, astronomers, librarians, lawyers, teachers, botanists, geologists, amateur photographers, mere vacationists, and hikers all — would conduct the evening campfire ceremony.

Perhaps Vernon Bailey, Chief Field Naturalist of the Biological Survey, would be prevailed upon to tell us the intimate details of beaver life, or of the differences

between seventeen varieties of field mice.

Again, a geologist would be called upon to tell of the mighty forces that had contributed to the unparalleled natural beauties about us.

On one memorable evening Mr. William S. Colby, Secretary of the Club and an intimate friend of John Muir, told us much of the simple, lovable character to whom this country owes so much of the wealth of mountain beauty preserved to us and to future generations.

On another memorable evening, camped near Many Glacier, we had a dramatic evening, with an improvised comic opera by the freshmen, a burlesque of Romeo and Juliet, and a Fashion Show, in which the marvelously varied contents of dunnage bags were unmistakably shown to be one of the seven wonders of the world.

Botanists, bird lovers, the more agile climbers of high peaks, singers, pantomimics, and on a welcome visit, the Director of National Parks himself, added to our enjoyment, knowledge, and appreciation of what it was our great privilege to see about us in the unspoiled wilderness.

And, always, we sang about those high mountain campfires as only the hiker can sing — songs handed down from one Sierra Club outing to the next, set to familiar melodies, sung from the heart, through lungs

expanded by the air of the high places.

Gradually, as the long twilight of those northern latitudes faded to darkness, the wide circle closed in. One by one a figure rose, snapped on his searchlight, and sought his bed roll. And as he withdrew reluctantly from the magic circle, drawing his sweater closer about him in the chill that lay so near outside the huddled group, there might come to his ears softly and yet more softly as he moved away a song —

There's a long, long trail a-winding. Into the South far away,
Where the granite domes are purple
And the canyons say:
Oh, it's afar to wander,
Amid the glaciers to roam,
But the high and white Sierras bid you
Come, you vagabonds, home!



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HEAVEN'S PEAK

In the range looking westward from Granite Park Chalets, an overnight stopping place for trail parties just below the Swift Current
Pass over the Continental Divide

The

ARCHITECTURAL BULLETIN

SS SS [PUBLISHED FOR THE SOCIETY OF TECHNOLOGY ARCHITECTS] SS SS

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Changes in the Department

A visitor to Rogers Building just after the opening of the Institute would have found a number of changes and new developments worth noting. To begin with, this year saw the Department of Architecture leading the other departments of the Institute, not in numbers but in percent of increase. The gain in numbers was 26 and in percentage 13.6, making the total registered in the Department about 200, of which 16 are fifth year men. The only other course to make a gain was Elec-

trical Engineering. The influence of Professor Carlu has probably had its effect in attracting more students than ever before to work leading to a Master's degree.

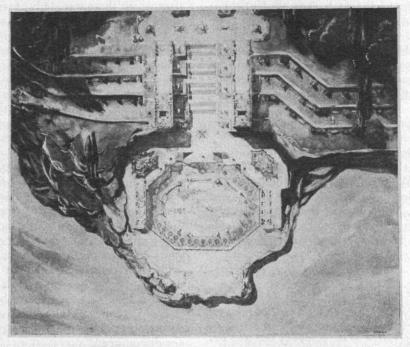
Several important changes in the curriculum have been made. For example, the old course in Water Color given in former years under the direction of Professor W. Felton Brown, has been abandoned and in its place has been substituted a course in Color Theory and

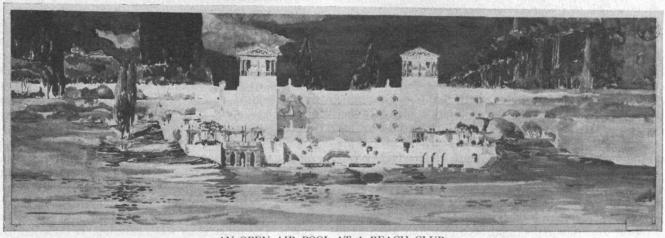
Composition given by J. Monroe Hewlett, of Lord & Hewlett, New York. Mr. Hewlett is an authority on stage lighting and scenic design and has in the past lent his valuable assistance to the men who were engaged in designing scenery for Tech Shows. The work of the new course, to which one hour a week is assigned, requires Mr. Hewlett's presence at Rogers once every two weeks during the school year. Supplementary instruction in monochrome rendering under the direction of Professor Brown and Nelson C. Chase, '17, is given in connection with the design problems. A separate judg-

ment of each design problem will be made from the standpoint of ren-

dering.

Last year, the Department, finding that there was a conflicting interest between the work in Constructive Design and Architectural Design, each of which interfered with the effective accomplishment of the other, tried an experiment. All architectural work with the exception of weekly sketch problems was postponed in order that un-





AN OPEN AIR POOL AT A BEACH CLUB

One of three Technology First Medal solutions in the first Conjunctive Problem for this year with Harvard and the Boston Architectural Club. This particular rendu is by Donald S. Nelson, Sp. '28

divided attention might be given to Constructive Design until the required work in that subject was completed, after which the students were able to devote themselves unrestrictedly to Architectural Design. The results were very satisfactory and the class which made a poor record in the first term under the old system came through with excellent records in both the second and third terms. In consequence this intensive method is to be applied again this year.

Another change suggested by the success of this scheme is scheduled in the freshman courses in Descriptive Geometry, Shades and Shadows, and Perspective. All of the work in these three courses, instead of being spread along through an entire term or through the school year is to be cleaned up as rapidly as possible, one course at a time. The students will then, in the second term, be able to devote their entire attention to their course in Elementary Architectural Design and will be equipped with a full understanding of the principles involved in the delineation of their designs.

The course in Town Planning, which has for the past two years been given to the fifth year students, has been made a part of the required curriculum of the fourth year. Thomas Adams, General Director of the Regional Planning Board of New York City and its environs, is in charge of the course as before, and it is expected that supplementary lectures by such specialists as Arthur A. Shurtleff, '94, landscape architect, will be continued.

Two new instructors have this year made their appearance in the Department. Albert C. Schweizer, '23, after having worked for two years in New York, returns to the Institute from the office of James Gamble Rogers, to take the place of William V. Cash, '24, holder of the 1924 Traveling Fellowship, who is now in Athens. John F. G. Gunther, '23, holder of the 1923 Traveling Fellowship, is now, after his travels in Europe, instructor in place of Harry C. Stearns, '16, on leave of absence.

Fontainebleau - A Student's-Eye View

The following story by R. C. Dean, '26, who was one of the holders of the Special Scholarships during the past summer at Fontainebleau, should be of interest giving as it does a first hand impression of the school by one who has actually gone through a course of instruction there.

In reading this article it must be first understood that it represents a student's point of view. It does not attempt to reflect the attitude of the entire student body, but the attitude of an individual and his reactions to the school, the method of teaching, the atmosphere, the discipline, the social contacts and national customs, that go to make up the school at Fontainebleau. It also must be taken into consideration that these reflections are the result of the writer's first visit to Europe, his first introduction to a foreign tongue, and his first experience of foreign culture.

The "Ecole de Beaux Arts Américaine" was established under the patronage of the French government after the closing of the first American art school in France. This first school had been operated for Americans from the army who desired to study the fine arts. After the closing of this school it seemed desirable to

continue the idea of an American summer school, and a group of American and French artists accordingly founded the present school with its quarters in the Palace of Fontainebleau. The past season was the third term of its existence.

The studio was situated in a wing of the palace which at some time had been burned so that only the walls were left standing when the Americans took it over. They built a roof over it and laid a floor, but no partitions or ceilings were put in. This gave a very large, well lighted and pleasant studio looking out on the most beautiful part of the palace grounds and furnishing everything that could be wished for to stimulate the development of beautiful ideas. The students were lodged in the town, mostly in single rooms, and took their meals at the palace in the long, vaulted gallery that was at one time an orangery.

The directors of the school set no definite plan of work that was adhered to. There was an opening date, June 25, before which the school could not have been said to have been in operation. There was a closing date after which there were only three students left working. With the exception of these two dates and a general outline of other events no schedule was maintained.

The director of the department gave programs to be followed out, either for projets or for measured drawings, but these were done or omitted at will by the students. There was criticism during the execution of the work and after its completion, but there was not a general judgment or criticism on a competitive basis. The lack of competitive work among the students was one of the outstanding characteristics of the school, operating as it did on a strictly individualistic basis, with each student taking as much or as little time as he wished for the projet. During the course of a problem criticisms were generally given in the draughting room by Messieurs Bray and Alaux in the morning and by M. Carlu in the afternoon. The three critics held widely divergent views on each of the problems and it was left to the student to sift them and take what he thought most suitable or most agreeable with his own ideas. Most of the students were influenced by the Decorative Arts Exposition and developed modernistic tendencies in their work, a thing which the faculty neither encouraged nor discouraged.

Lectures in English on French History were very popular. This was due to the very appealing personality of the lecturer, M. Saillens. These lectures were given from an entirely French point of view and were not in accord in some instances with the history taught in American schools, but they were, owing to the humor of the lecturer and his sophisticated views of historical characters, immensely entertaining even to the student well versed in French history.

French was taught in two classes separated by an almost incredible gap in difficulty. The beginners' class was the usual dry, uninteresting baby language, filled with infantile ideas and was uninteresting both to pupils and to teacher, victims of the seeming necessity of repeating one's childhood in the acquisition of a new language. The other class was charming. It included lectures by Madame Pecker on French literature, papers written by the students on any conceivable subject,

readings from modern French poets and discussions of modern problems of both personal and general interest. Perhaps it was the charm of the language or its strangeness, perhaps it was the capabilities of the teacher or a combination of all that made this one of the most interesting of the courses given. Of other studies there were none. Design, History and French filled every requirement of the curriculum.

The director made it a practice to entertain certain of the students in his apartments from time to time. This policy was followed by other professors and many warm personal friendships were thereby established between these older men and their younger confrères. Formal entertainments, dinners and dances were given for the whole student body, upon which occasions the conversation at the center table, where sat the dignitaries, was a constant source of entertainment for the students, who there saw French manners and customs in their natural setting.

These would seem to an outsider to be ideal conditions—conditions fit to inspire great achievements. Any students who did not take advantage of them would seem almost to be condemned, but strangely enough most students failed to do so. Regardless of what has been said by others the students did not seize their opportunities or perhaps reacted to them in an unexpected way. No student in the whole department did much over half the number of projets given out. Each projet done took twice the allotted time and many were

not up to standard when finished.

There were many reasons underlying this state of affairs. First, few if any of the students were used to having all the bonds of discipline relaxed. Competitive work and fixed schedules, which had been used as a goad in the student's preliminary training, here ceased to have their influence. Europe was strange and the students were running wide-eyed from place to place, looking instead of working. Many of them were young and had not vet learned how to drive themselves to individual achievement. Those who did work were free indeed to develop along lines which most appealed to them. Ideas of composition, color, mass, etc., which had lain dormant under American systems were developed, though oftentimes apparently without successful results. The men working on their own initiative were apt more often to produce failures. They were given a taste of what will be expected of them as architects and many of them were not ready for it. Their minds were in a turmoil, many old ideas were upset, many were strengthened, and new ones were added to the stock. There is something queer about the atmosphere of Europe, that for the American is not conducive to work. To sit gazing through the studio window was a temptation hard to overcome even when to look out meant a loss of all ambition to create at that time, and aroused an inescapable longing to wander out and enjoy the exquisite beauty rather than to sit and create a poor semblance of it. Perhaps after such beauty becomes familiar it loses some of its allure but it did play havoc with the rendered projets which should have been done this summer.

Sketching, although much encouraged by the school, also levied its toll upon the projets and became for some

the entire aim of the day. From early morning until dusk the architects took themselves out to try to translate some of the existing beauty into terms of paper and

pigment

The only remedy for the situation is a more careful selection of the students. The school was established and is run for advanced students, yet the American committee allowed students to enter the school whose equipment for it was pitifully meager. They sent men there who understood practically nothing of the teaching offered them and as a consequence the instructors were teaching quite over the heads of many of their pupils. The more advanced students were not impeded by this fact but the others presented a very discouraging spectacle to the instructors and the director.

Probably the introduction of a few French students would be desirable. In this way the Americans would be able to learn French ways much more quickly than from their instructors. Grinding ink, making calques, stretching paper, speaking French — all these would be

more easily learned.

It is impossible to state after such a short interval as has elapsed since the close of the school just how great the achievements of the summer were. It may be many years until one can gain sufficient perspective to judge the value to the individual of attendance for a summer at the Fontainebleau school but it is certain that in my case, at least, it has been substantial.

Department News

Shortly after the opening of the school year the summer sketches done by students were hung in the Exhibition Hall in Rogers Building, and were judged for the purpose of awarding the two prizes which are offered annually for such activities. The first prize of \$30 was won by R. C. Dean, '26, who contributed a number of ably handled water colors. H. E. Muhlenberg, '27, who also submitted an excellent group of sketches, carried off second prize of \$20.

Winning the Conjunctive Problem competitions with Harvard and the Boston Architectural Club seems to have become a habit with Technology students, who in the first problem of this year, judged about November 1, dealt as crushing a defeat to Harvard as has been administered at any time this season to their football team. The subject was "An Open Air Pool for a Beach Club", and four weeks were allowed for the completion of the design. When the smoke emitted by certain members of the jury had cleared away it was found that Technology had taken three out of four of the first medals and all four of the second medals, Harvard being necessarily content with one first medal. The three leading Technology men were Donald S. Nelson, Sp. '28, N. L. Flint, '26, and E. O. Holien, '25. Nelson's contribution is reproduced on page 89.

An exhibition of the work of the French architect, M. Defrasse, was shown in the Rogers Building during the week of November 2. M. Defrasse is the holder of a Traveling Bourse (which is the French equivalent of a Traveling Scholarship) and is spending the time covered by his scholarship in studying the architecture of the United States. The drawings exhibited showed an intensely modern spirit in design, the most striking being a project for a series of floating islands to be established along the probable line of future air traffic across the Atlantic, to furnish safe landing harbors and refueling stations for airplanes engaged in trans-Atlantic flights. The concept is a daring one but the skillful presentation of the design made such a development seem quite plausible.

The long-expected book on "Old Bridges of France" which Professor Emerson has had in course of preparation is at last published and is available in New York. Those who have had the pleasure of examining a copy are agreed that it is indeed a thing of beauty. It is generously illustrated with water colors by the late M. Vignal, pencil sketches by L. C. Rosenberg, '14, and Samuel V. Chamberlain, '18, and measured drawings prepared in Paris under the direction of M. Georges Gromort. A complete review of the volume, written by one of America's leading architects, will be published in a forthcoming issue of The Technology Review.

Last summer at Fontainebleau the Institute was represented by ten students from the Department, namely, Miss Frances S. Hopkins, Miss Mary L. Morrison, '25, R. C. Dean, '26, D. S. Nelson, Sp. '28, W. V. Cash, '25, John H. Raftery, G, Frank W. Cole, '25, Webster B. Shippey, '25, W. R. Amon, '23, and R. E. Winslow, '24. Of this number Dean and Nelson were holders of the special scholarships offered last year by the Department, while Raftery held one of the Fontainebleau prizes given by the Beaux Arts Institute of Design, of New York. During the season three special prizes were offered for excellence in Architectural Design. One, the Alaux prize of 600 francs, was awarded to W. R. Amon, '24, and D. S. Nelson, Sp. '28. The other prize was awarded to a non-Technology student.

Alumni News

The latest addition to the number of former students of the Department who are teaching in other collegiate schools of architecture is Samuel V. Chamberlain, '18, who is for this school year teaching Second Year Design and Pencil Sketching to the students of the University of Michigan. Frank C. Gilson, '24, A. S. Golemon, '25, and Jesse W. Green, '25, are instructing in the University of Florida, Alabama Polytechnic Institute, and North Dakota Agricultural College, respectively.

Isidor Richmond, '16, has recently returned from his travels in Europe as holder of the Rotch Traveling Scholarship. The *Boston Evening Transcript* some time ago published a letter of his written from Bologna which is of sufficient general interest to merit re-quotation.

"I went up to Bologna from Rome to make an envoi of the Palazzo del Podesta, and I was armed with a letter from the director of the American Academy to the mayor of Bologna, asking the mayor to give me permission and any assistance he could in making my drawing. I could not have fallen into better hands. The mayor was a fine gentleman, and, besides being mayor, was a professor at the University of Bologna, so that he took a real interest in my work. He asked in what way he could be of assistance, and I told him (in very broken Italian) that I would like to get ladders with which to climb up on the building and, if possible, a place to make my drawing. He immediately called up the fire department and told them to supply me with ladders; then he called up the city architect and asked him to give me a place in his office in which to make my drawing.

"The next morning when I called at the fire department at the appointed time I found them taking out, not the ordinary ladders, as I expected, but a very modern extension fire ladder on a truck. The palace I wished to measure was in the principal square in the city. The Italian people, as you know, have plenty of curiosity, and you can well imagine the way they gathered around when I appeared with a squad of firemen and this great extension ladder, to do my measuring. The palace is a high building, and although I was very conspicuous when I climbed up about eighty feet, with rulers and notebooks in my pocket, to measure the cornice and high parts, everything worked finely. When I wished to change my position to another part of the building it was not necessary to climb down the ladder. I just yelled to the firemen and they pivoted the ladder around, with me sitting on top, to the next place I wished to work. By the time I had finished my work the crowds had gathered so thickly the police had to make a passage for the traffic.'

The innovation undertaken in February, 1925, when The Architectural Bulletin was incorporated in alternate issues of The Review will be continued this year. The Executive Committee of the Society feels that the incorporation has worked out satisfactorily, and it is thus a pleasure to announce that arrangements have been made for continuance under the new scheme.

Last year, the income received as dues from members of the Society was insufficient to meet the cost of printing the *Bulletin* in this way, and the resulting deficit was generously met by a contribution from the Department. Already, however, the financial situation of the year just now beginning appears much brighter.

Marked increase in dues payments is expected this year. The Society has most fortunately been able to arrange to send to the first three hundred men who pay dues a portfolio of eight sketches of the Institute buildings done last summer by Samuel Chamberlain, '18, and it seems certain that this stimulation to prompt payment will do much to insure a successful year's operation of the Society.

Chamberlain's sketches of the Institute are done in the same brilliant and incisive style that marks the numerous pencil drawings he has previously published. These present sketches will form the eight of this year's cover designs for The Review, but for the purposes of the Society they will be especially printed on tall paper, and designed to be suitable for framing or other display. They will be unobtainable save through the Secretary-Treasurer of the Society, and not more than three hundred sets will be available to members.

Undergraduate Affairs

The Old-Fashioned Field Day

SCARE headlines appeared in the metropolitan newspapers about the occurrences incident to Field Day. The tear-gas bomb attack by the sophomores on the freshman stands, the snake dance

into Boston and the consequent halting of subway and street traffic for some time, was treated sensationally, and a sensation it was in the sense that much water has passed through the hydraulic laboratory since the last such fracas had occurred.

After leaving Tech Field the rampant undergraduate classes did not halt until they found themselves facing a policeman's pistol at the Massachusetts Avenue intersection. It took some time to convince this pugnacious individual that the procession must not be stopped, but once done the mob wended its way to Rogers Building.

Accompanying the procession was the 1928 mascot, a vermilion and motorless flivver, better known as Napoleon. Upon arriving at Rogers the impotent mechanism was hoisted up to the top of the steps and there dissected with fiendish surgical thoroughness. Several seniors wielded sledges and the crowd scrambled for fragments, flivver crumbs becoming the prized souvenirs of underclassmen.

On Field Day eve the fiercest of class fights occurred. Hangar Gymna-

sium was the supposed secret rendezvous for a sophomore class morning, the dignified and ultra-conservative (and very likely sophisticated) Walker Memorial Committee having denied the use of that tabernacle. Somehow, news of the Druidic ceremonies leaked out and permeated the freshman ranks. At the appointed hour the sophomores found it incumbent upon them to defend their ritualistic citadel together with their clothing and personal state of well-being.

Primitive passions prevailed, primitive machines

were brought into action, the besiegers battered an entrance into the Hangar. One of the invaders fell into the hands of the sophomores and a short while later he was rudely thrust from a sally port in all his pristine glory. Later the tables turned and he was observed fully clothed in the accoutrements of a luckless sophomore, nude but warmed by 1929 paddles. So the battle wavered.

When finally the sophomores made an assault in force some definite afflatus seemed to have caught each class and, putting aside civil difficulties, they essayed a grand march along Massachusetts Avenue to the Harvard Yard. No reception committee awaited, so the evening came to an end with a fusillade of Technology songs in the enemy territory. Harvard must have had a foreboding of what the next Saturday brought forth.

Not for some time had there been such an exhibition of enthusiasm. The *esprit* of 1929 was at its flood. On the morrow between the hours of two and five normalcy was restored, for the sophomores made a clean sweep of Field Day, winning the crew race, the relay, the

tug-of-war, the football game. The freshmen made no score. Precedent has it, of course, that the sophomore class will turn out victor, but seldom is it that the van-quished is permitted no solace whatever.

Athletic Results to November 11

Cross Country

Oct. 24—New Hampshire University 26, M. I. T. 29, at Durham.

Oct. 30—Harvard 24, M. I. T. 31, at Harvard Stadium.

Nov. 7—M. I. T. 17, Brown 45, at Franklin Park.

SOCCER

Oct. 17—New Hampshire University 3, M. I. T. 2, at Durham.

Oct. 24—Worcester 2, M. I. T. 1, at Worcester.

Oct. 31—Dartmouth 10, M. I. T. 1, at Hanover.

Nov. 11—Harvard 3, M. I. T. 2, at

FIELD DAY

Nov. 6-1928 13, 1929 o, at Tech Field.

A Calendar of Future Sports

Dec. 5—Basketball—New Bedford Textile at home.

Dec. 15—Basketball—Dartmouth at Hanover.

Dec. 18—Basketball—Tufts at Tufts.

Dec. 19—Basketball—Brown at bome.

Dec. 19—Wrestling—Northeastern at home.



VICTORY: THE WINNING PULL

The Sophomore team taking up slack in the second pull of the Field Day tug-of-war, which they won in fifty-nine seconds

Athletic Poverty

Again the ever increasing pressure for money to support the various athletic teams at Technology has forcefully brought to the attention of the student body the possible necessity of increase in the undergraduate dues or "student tax" if the teams are to be properly equipped and coached. Decrease in registration is a contributory cause to the poverty of the M. I. T. A. A.

With the growth of crew and other major sports the so-called minor sports have been forced to accept each year a smaller percentage of the Athletic Association's funds. This year the total budget is \$2,000 greater than the sum available. Discussion was rife earlier in the year as to the advisability of withdrawing financial support from the five minor sports of boxing, fencing, golf, gym and hockey. The Advisory Council on Athletics decided at its November meeting that such a move would at present be unwise. Accordingly \$1500 of the needed \$2,000 will be raised from among the student body. For this purpose a revival of "Yishkabibble," "Was Ist Los?" or "Niemand zu Hause," faithful athletic financial supports of a decade ago, may come to pass. Dusted off and modernized, of course.

As this solution affords only temporary relief and in no way solves next year's problem, the Athletic Association, with The Tech, secured the appointment by the Institute Committee of a committee to make a comprehensive study of the situation and see what relief can be obtained for the future; if necessary attempting to secure authority from the Corporation to increase the undergraduate dues.

This will not be the first report of its kind to be drawn up by members of the student body, there being besides the report of 1917 which procured the original levy of these dues, two others of importance afterward, one in 1920 and a second in 1922. The 1922 report was monumental and advocated the gradual increase of the tax from \$9 per annum first to \$12 and then to \$15. It failed to make its \$12 proposal effective but it did secure a reapportionment of the then-existing tax, the Corporation assuming more of the burden of the carrying charges on Walker Memorial and thereby releasing an extra \$3 per capita for athletics. This gave the practical result hoped for by the \$12 proposal without putting an extra burden on the individual. The ultimate goal of \$15 has not yet been sought.

There is an undercurrent of opinion that Tech Show might profitably return to its original policy of financial affiliation with the Athletic Association. The Show has found it an increasingly difficult matter to secure support from the undergraduates adequate to meet a constantly increasing budget. The backing of the Athletic Association has once again been suggested as a means for arousing student interest. The plan would mean the diverting of some of the resulting Show profits into the coffers of the Association, at present so lamentably empty.

The 1926 Technique

Several important content revisions, make-up changes, lavish art work, modified division inserts, an innovation in the printing of the views section, larger type-page size than heretofore, "striking improvements



(c) Boston Globe

DEFEAT: DISORGANIZED DESPAIR

Unavailing opposition by the freshmen in the first pull of the tug-of-war, the second event on the November 6 program

in the Faculty Section" — these are some of the promises of the Managing Board of Technique, Volume XLI, which has been accumulating material for the book making its annual appearance next spring. Some disappointment with last year's book was voiced in certain quarters. This year the editors aim to eliminate undesirable inclusions and to improve also by addition of new features. Much material has been gathered during the summer and fall and it is now being sifted, considered, verified, rewritten and submitted to various other of the usual editorial processes which tend to ensure a careful manuscript.

North Hall Comes South

A year or so ago when extensive alteration and decoration were performed on Walker Memorial the room known as North Hall was left untouched. Since its size is such that it is convenient for small assemblies, dances, and the like, there has gradually arisen in undergraduate circles the sentiment that its drab interior demanded improvement. These æsthetic desires found a voice in the Walker Memorial Committee and this group, through the usual channel of the Institute Committee, submitted a request to the Corporation that the room be redecorated.

At a recent meeting of the Executive Committee of the Corporation the request was granted and \$700 appropriated for the purpose. The money is to be used for resurfacing the floor, repainting the walls, and hanging draperies. The work is to be done during the Christmas vacation under the direction of Professor H. W. Gardner, '94, of the Department of Architecture. The

process will be viewed with interest tinged with a slightly cynical hope.

Rushing Rules

An active discussion on the installation of some system of rushing has been the feature of the Interfraternity Conference meetings this year. A rushing agreement has actually been drawn up, accepted by the Conference, and submitted to the various chapters for ratification. It provides for a closed season from the Saturday following Labor Day to the Saturday preceding registration. The purpose of this is to obviate the necessity of returning early to "rush" and to prevent the freshmen taking entrance examinations from being hindered in their work. A \$350 bond is to be put up by each house to insure obedience.

A rushing agreement was tried three years ago and proved to be a failure due to a too complicated plan and lack of unanimous participation. The proponents of the present plan claim that its simplicity and general desirability practically insure its success. The Tech has burlesqued the entire procedure, with a consequent inflow of communications and comments written with some asperity. The affair seems to have aroused much interest.

The Ladies' Voo Doo

Another Girls' Number of Voo Doo appeared on the stands recently and attracted more than usual attention. No recent issue of the undergraduate comic has contained so much genuinely comic material; whereon can be hung a conclusion that the female has a more



R. A. ROTHSCHILD, '26
One author of Tech Show 1926, "Two
Many Brothers"

delicate and subtle sense of humor than the male. It has been suggested that mascot Phosphorus might pursue a policy of turning over all the numbers to lucubrations of the funnier sex.

Art and literary material for this issue was received from girls all over the country. The materialwasjudged and awards of Voo Doo and Woopgaroo charms were made to those who sent in the best material. Not content with this alone, the Managing Board went to Hollywood and inveigled Eleanor Boardman into

sending an autographed photograph for the dedicatory page. It was inscribed "To Phosphorus — anyway my severest critic, Eleanor Boardman."

Musical Clubs

A new policy has been inaugurated by the management of the Musical Clubs in securing the services of an Alumnus to act as the coach of the "Techtonians"—the Musical Clubs' jazz band. A. M. Eisenbourg, '12,

biologist, physician and jazz artist, is the one to occupy this unique position.

Dok Eisenbourg is not only a Technology graduate but a graduate of the Harvard Medical School. After obtaining his doctorate in 1920 he spent a year in Europe studying both medicine and music.

After completing his musical education in Europe he returned to America in 1921 to begin his musical career. At the present time he is the leader of the Sinfonians, playing at Loew's State Theatre.

While an undergraduate at the Institute, Eisenbourg was prominently connected with the Tech Show and the Musical Clubs. He was, with L. C. Shaw, '09, and Rupen Eksergian, '14, the organizer of the first Tech Show Orchestra. Prior to that time the

Musical Clubs and the Tech Show had a combined orchestra and it was due principally to the efforts of these three men that the separation was effected. In addition to playing in the Show orchestra he wrote the music for "Castles in Spain," Tech Show 1912.

Tech Show Emerges

George V. C. Lord, known in college dramatic circles as "David Belasco" Lord, has been chosen to coach the twenty-eighth annual production of Tech Show, "Two Many Brothers," written



® Bachrach

J. B. GOLDBERG, '26 The other author of "Two Many Brothers"

by J. B. Goldberg and R. A. Rothschild, both members of the Class of 1926. It is already apparent that this year's production is to be something of a return to the earlier and more localized Shows, being a two-act musical comedy dealing with fraternity life, rather than upon a subject apart from Technology.

Mr. Lord has been quite prominent during the last twenty years as a coach of college Shows, having coached the Harvard Pi Eta for fifteen years and at various

times the Hasty Pudding Club productions. Charles A. Young, who has been with Tech Show for the past three years as musical director, will assist Mr. Lord this year.

The authors have played no small part in undergraduate life. Both are at present night editors of *The Tech*. Goldberg, until he transferred his journalistic efforts to the newspaper, was a member of the literary staff of *Voo Doo*.

Instead of the customary ballet the management has reverted to a pony chorus in addition to the regular chorus, reminiscent of the pre-war Tech Shows. As yet no definite plans have been decided upon as to the extent of the annual trip but it is apparently hoped to include Hartford, Schenectady, Rochester, Buffalo and Smith College at Northampton. There will be no New York trip this year.



"PHOSPHORUS BLUSHES"

In the November issue of Voo Doo, the content of which once again comprised selections from the contributions of Phosphorus' lady friends

Bibliography

A Compilation of recent publications by Alumni and Members of the Staff

Books

ADAMS, R. G., '11, with Cowdrey, I. H., '05; "Materials Testing; Theory and Practice"; September, 1925; 129 pp.; 6 x 9; \$1.50; Wiley.

COWDREY, I. H., '05. See Adams, R. G., '11. DWIGHT, H. B., "Transmission Line Formulas"; (2d

edition); 1925; 216 pp.; VanNostrand.

EMERSON, W., with Gromort, G.; "Old Bridges of France"; September, 1925; 134 pp.; 12½ x 17½; \$25.00; Press of the American Institute of Architects.

Franklin, W. S., "Elementary Theory of the Precision of Measurement"; August, 1925; 32 pp.; \$0.50;

Franklin & Charles.

Horwood, M. P., '16, with Research Division of the American Child Health Association; "A Health Survey of Eighty-six Cities"; October, 1925; 614 pp.; \$3.00; American Child Health Association.

LOCKE, C. E., '96, with Richards, R. H., '68; "Text Book of Ore Dressing"; 1925; 570 pp.; \$5.50; McGraw-

LOFTING, H., '09; "Doctor Dolittle's Zoo"; 1925; 338 pp.; \$2.50; Stokes.

Nash, L. R., '94; "Economics of Public Utilities"; 430

pp.; \$4.00; McGraw-Hill.

Passano, L. M., "History of Maryland" (new enlarged

edition); 1925; Williams & Wilkins.

PHILLIPS, H. B., "Differential Equations"; January, 1925; 116 pp.; 5 x 7\frac{1}{4}; \$1.25; Wiley.

RUSSELL, G. E., '00; "Text Book on Hydraulics"; (3d edition); November, 1925; 311+ix pp.; Holt.

SHIMER, H. W., "An Introduction to Earth History";

October, 1925; 411 pp.; \$3.00; Ginn. Terzaghi, C., "Erdbaumechanik"; 399 pp.; \$4.30; Deuticke, Wien, Austria.

THOMPSON, S. E., '88; "Concrete Plain and Rein-

forced" (4th edition); 1925; Wiley. TIMBIE, W. H., "Elements of Electricity"; (2d edition);

June, 1925; 624 pp.; 5\frac{1}{4} x 8; \$3.50. Wiley. TURNER, C. E., '17; "Personal and Community

Health"; June, 1925; 426 pp.; \$2.50; Mosby.
WOODRUFF, L. F., '18; "Principles of Electric Power
Transmission"; October, 1925; 340 pp.; \$4.00; Wiley.

Articles

ABORN, R. H., '20; "Manufacture and Properties of Alloy Steels"; Iron Age; March 5, 1925. — With Lester, H. H.; "The Behaviour Under Stress of Iron Crystals in Steel"; Army Ordnance; September-

December, 1925. ALGER, P. L., '15; "The Development of Low Starting Current Induction Motors"; General Electric Review;

July, 1925.

Ashdown, A. A., Ph. D. '24, with Davis, T. L., '13; "Transformations of Diphenylamine during the Aging of Smokeless Powder"; Jour. Ind. and Eng.

Chem; July, 1925. BARROWS, H. K., '95, with Kurtz, F.; "The Davis Bridge Shaft Spillway and Tunnel"; Trans. Am. Soc. C. E.; January, 1925. - With Eaton, A. C.; "The Davis Bridge Power Plant"; Jour. Boston Soc. C. E.; January, 1925.

Bush, V., Eng. D. '16, with Stewart, H. R., '24; "Transmission Line Transient Investigations"; M. I. T.

Research Bulletin.

CLARK, G. L., with Harkins, W. D.; "The Effect of Sodium Hydroxide upon the Surface Tension of Sodium Nonylate"; Jour. Am. Chem. Soc.; July, 1925. — "New Experimental Studies of the Effects of X-rays in Photochemical Oxidation, Catalyst Activation and Ionization of Gaseous Mixtures"; Proc. Internat. Congress of Radiology, (London); July, 1925. — With McGrath, P. C., '24, and Johnson, M. C.; "The Effect of X-rays on the Platinum Catalyst in the Contact Sulphuric Acid Reaction"; Proc. Nat. Acad. Sci.; October, 1925. — With Brugmann, E. W., '24, and Heath, S. D., '24; "X-ray Studies of the Ultimate Structures of Commercial Metal"; Jour. Ind. and Eng. Chem.; November, 1925. - With Weber, H. C., '18, and Hershey, R. L., '23; "A Precision Spectromoter for Chemical Investigations"; Jour. Ind. and Eng. Chem.; November, 1925. - With Asbury, W. C. and Wick. R. M.; "An Application of X-ray Crystallometry to the Structure of Nickel Catalysts"; Jour. Am. Chem. Soc.; November, 1925.

Dahl, G., '21; "Separate Leakage Reactance of Transformer Windings"; Jour. A. I. E. E.; July, 1925.

Davis, T. L., '13; "Chemistry in War: an Eighteenth Century Viewpoint"; Army Ordnance; May-June, 1925. — "New Light on Phlogiston"; Chemistry and Industry (London); July 17, 1925. (See also Ashdown, A. A., Ph. D. '24.)

DWIGHT, H. B., "Use of Temperature Detector for Cables"; Electrical World; March 7, 1925. - "A Formula for Use in Calculating Repulsion of Coaxial

Coils"; Electric Journal; August, 1925.

Frank, N. H., '23, with Heymans, P. A., Sc. D. '23; "Method for Measurement of Time Intervals from 10-7 to 6.7 x 10-11 Second"; The Physical Review; June, 1925.

Franklin, W. S., "Indeterminism in the Physical World"; Proc. Am. Acad. of Arts and Sci.; September, 1925. — "A Survey of Physics"; Science; November 15, 1925.

FRÖLICH, P. K., '23; "The Carbon Error in the Quantitative Deposition of Nickel and Iron from Complex Oxalate Electrolytes"; The Analyst; May, 1925. —

The Amphoteric Character of Gelatine and its Bearing on Certain Electrochemical Phenomena"; Trans. Am. Electrochem. Soc.; October 3, 1925. -"The Introduction of Carbonaceous Matter in Electrodeposited Iron and Nickel"; Trans. Am. Electrochem. Soc.; October 3, 1925.

FROST, T. H., '13, with Richards, R. W. E.; "Eye Bolt Stresses as Determined by Photoelastic Test"; Four. Soc. Am. Eng.; August, 1925; - With Colvin, O. D.; "Stresses around Rectangular Openings in Flat Plates"; Trans. Soc. Nav. Arch.; October, 1925.

GARDNER, M. F., S. M. '24; "Corona Investigation on an Artificial Line"; Jour. A. I. E. E.; August,

HARDY, A. C., '18, with Ross, F. E.; "The Physics of the Developed Photographic Image, Chap. 2"; Van-

Nostrand; 1924. HASLAM, R. T., '11; "Study of Cokes from Various Types of Plants Using Same Coals - Progress Report"; Proc. Am. Gas. Assoc.; October, 1925. "Reactions of the Fuel Bed in the Gas Producer";

Jour. Ind. and Eng. Chem.; June, 1925.

HAVEN, G. B., '94; "The Humidity Factor in Textile Testing"; Cotton; October 26, 1925.

HEYMANS, P. A., Sc. D. '23; "Étude des Causes de Rupture de Constructions Metalliques au moyen de la Lumière Polarisée"; Revue Universelle des Mines; May 15, 1925. — "Bemerkung zur Arbeit des Hrn. A. Ramspeck, 'Anomalien der Accidentellen Doppelbrechung beim Zelluloid'"; Annalen der Physik; 1925. (See also Frank, N. H., '23.)

Hітснсоск, F. L., with Rice, L. H.; "The Multiple Complement of One or More Polyadics"; Jour. Math. and Phys. M. I. T.; May, 1925. — "A Theory of Ordered Determinants"; Jour. Math. and Phys. M. I. T.; July, 1925.—"A New Method in the Theory of Quantics"; Jour. Math. and Phys. M. I. T.; July, 1925.

HOVGAARD, W., "The Norsemen in Greenland"; The

Geographical Review; October, 1925.

KEITH, H. H. W., '05; "Ships Lines"; Marine Engineering; October, 1925.

KEYES, F. G., "Chemistry in Refrigeration"; Chap. XIX in Vol. II of Chemistry in Industry.

KNOBEL, M., '19; "Effect of Surface Condition on Overvoltage"; Trans. Am. Electrochem. Soc.; April, 1925. — "A Porous Electrode for Oxidations or Reductions"; Jour. Ind. and Eng. Chem.; August, 1925.

LEWIS, W. K., '05, with Ries, E. D., S. M. '23; "Influence of Reaction Rate on Operating Conditions in Contact Sulphuric Acid Manufacture"; Jour. Ind.

and Eng. Chem.; June, 1925.

LOCKE, C. E., '96, with Richards, R. H., '68; "Progress in Ore Dressing and Coal Washing in 1924"; Mineral

Industry; October, 1925.

MACDONALD, H. J. C., '07; "Effect of Vacuum on Producing Wells"; Oil and Gas Jour.; April 9, 1925.

MACINNES, D. A., with Smith, E. R., '19; "The Moving Boundary Method for Determining Transference Numbers. IV. The Transference Numbers of Some Chloride Solutions"; Jour. Am. Chem. Soc.; April,

1925. - With Brighton, T. B.; "The Moving Boundary Method for Determining Transference Numbers. III. A Novel Form of Apparatus"; Jour. Am. Chem. Soc.; April, 1925. - "The Transference Numbers of Mixed Chlorides (Discussion of papers by Schneider and Braley and by Braley and Hall)." Jour. Am. Chem. Soc.; July, 1925.

MÜLLER, H., "Sur la Théorie de la Charge Électrique et de la Coagulation des Colloides"; Archives des Sciences Physiques et Naturelles; May, 1925.-With Wieguer; "Die Theorie der Raschen Coagulation Polydispersce Systeme"; Kalloidzeitschrift; Septem-

ber, 1925.

PROCTOR, B. E., '23, with Rowe, A. W., '01, Chandler, J., Greene, W. C.; "Vital Function Studies"; Boston Med. & Surg. Jour.; April 16, 1925.-With Marner, P. B.; "Camp Inspection"; N. H. State Health Bull.; August, 1925.

RYAN, W. P., '18; "Rate of Travel of Fusion Zone in Coke Ovens"; Proc. Am. Gas Assoc.; October, 1925.

SHERWOOD, T. K., S. M. '24; "The Solubilities of Sulphur Dioxide and Ammonia in Water"; Jour. Ind.

and Eng. Chem.; July, 1925.

TERZAGHI, C., "Zur Charakteristik der Bausande"; Zeitschrift des Österr. Ingenieur und Architekten, Vereines; August, 1925.—"Principles of Soil Mechanics. I. Phenomena of Cohesion"; Eng. News-Record; November 5, 1925.—"Theorie der Hydrodynamischen Spannungs Erscheinungen"; T. Waltman, Delft, Holland; 1925.

THOMPSON, M.D., '98; "Change in Concentration of Electrolytic Impurities"; Chem. and Met. Eng.; Au-

THOMPSON, S. E., '88, with Freeland, W. E.; "Savings Through Management in Rubber Industry"; Management and Administration; May, 1925.—"The Shoe Manufacturing Industry of New England"; Printed by Boston Chamber of Commerce; 1925.—"Underground Management in Bituminous Coal Mines"; Chap. VII, Sec. I, in "What the Coal Commission Found"; Williams & Wilkins; 1925.

TIMBIE, W. H., "Coöperative Course in Electrical Engineering at M. I. T." four. of A. I. E. E .; July, 1925.—"New Public Utility Course at M. I. T.";

Science; October 17, 1925.

TURNER, C. E., '17; "Malden Studies in Health Education"; Am. Jour. Pub. Health; May, 1925 .- "The Schoolroom a Force for Health"; Survey Graphic; November, 1925.

TYLER, R. G., '10; "A Fineness Modulus for Filter Sands"; Jour. N. E. Water Works Assoc.; November,

Vallarta, M. S., '21; "La Teoria Relativista de la Estructura Fina de las Rayas Espectrales"; Memorias

de la Sociedad Alzate; September, 1925.

Woodruff, L. F., '18; "Discussion: 'A Complex Quantity Slide Rule'"; Jour. A. I. E. E.; June, 1925.

"Note on a Method of Evaluating the Complex Roots of Sixth- and Higher-order Equations"; Jour. Math. and Phys. M. I. T.; May, 1925.

Young, L. H., '15; "An Instrument for Recording Vibrations"; Mechanical Engineering; November, 1925.

News from the Alumni Clubs 20

Technology Club of Western Pennsylvania

S The Review season is now in full swing, it would seem appropriate that a few dusty words be submitted from the great Smoky City and the land of baseball championships. The Technology Club of Western Pennsylvania has lived a quiet but substantial life during the summer. Luncheons have been held every Friday noon at the Chamber of Commerce dining room and, judging from the attendance, Technology graduates must be intent on their work as the vacation season seemed to make little effect on the size of the ranks.

Now that the fall is upon us and winter well under way, according to present weather indications, we are looking forward to a big year in this section of the country.

The officers, elected at the annual banquet last spring, are: President, G. M. Gadsby, '09; Vice-President, C. G. Koppitz, '09; Secretary-Treasurer, G. W. Ousler, '16; Assistant Secretary-Treasurer, H. W. Dexter, Jr., '23.

Four meetings are being planned during the year, the first to be held on November 5. At this meeting, Dr. E. R. Weidlein, Director of the Mellon Institute of the University of Pittsburgh, is going to discuss some of the non-engineering phases of engineering. The dining and recreational facilities of the Institute are to be turned over to the Society for the evening, and the rest is self-evident to those who have been present on previous similar occasions.

For the meetings this year an attempt is to be made to provide speakers and entertainers of national repute, with an idea of having something on tap which is not related to either the "load factor" or the "valuation coëfficient."

Forrest G. Harmon, '23, Correspondent, 1810 Frick Bldg., Pittsburgh, Pa.

Southwestern Association of M. I. T.

Last July the members of the Southwestern Association of M. I. T. all agreed that it would be a mighty good plan for them to get together about once a month during the coming winter. It was in the middle of the summer that we were last together, the occasion being a supper and a six reel film on aviation. It had been the plan of the Secretary to call the first monthly meeting in October, but early in September our efficient Executive Secretary in Boston notified us that there were two Kansas City men going to the Institute for the first time this fall, and added that it would be a good idea to meet them before they left the city.

The result was that on less than a week's notice we arranged for a meeting to be held at the Kansas City Club on Tuesday, September 15, as a noonday luncheon. As guests, we had J. C. Melcher, a college transfer, leaving for the Institute the following day to join the Class of '29. Virgil W. McDaniels, who is planning to enter next fall, was introduced by Hermann C. Henrici. Another man who was planning to enter this fall had already left the city. It was a pleasure to have these fellows with us and introduce them to some of the Technology men of Kansas City.

In all there were thirteen graduates of the Institute present at this meeting. The man who hailed from the earliest class to be represented was Dr. Charles A. Meserve, '95, V, who came over from Kansas City, Kan., to be with us.

Since the September meeting we have held one other gathering, at the same address — on October 14. There were eleven graduates present at this luncheon, which was evidently as pleasant as the previous one. Very nearly the same crowd turns up each time, although at the October luncheon two new men put in an appearance. They were Alfred W. Hertz, 'o6, IV, and W. D. Norwood, '23, VI-A.

Throughout the coming winter it is planned to call the fellows together every month, probably for a luncheon. From present indications, it seems as though a luncheon will be the best, as it does not take too much time away from other duties, and brings the group together often enough for us to get to know each other better.

ELTWEED POMEROY, '23, Secretary, 410 Land Bank Bldg., Kansas City, Mo.

The M. I. T. Club of Akron

The last meeting of the Akron Club was an outing held in conjunction with the Cleveland Club, September 26, at the estate of Mr. C. W. Seiberling in Northfield. Mr. Seiberling in not a Technology man, but is well known to a large number of the fellows. When he heard that the Tech Club was planning an outdoor meeting, he very generously offered the use of his property for the affair. The meeting was very well attended and everybody had a mighty fine time. The weather was excellent and the place proved to be ideal for such an affair.

The afternoon was taken up with outdoor sports, the most interesting and exciting of which was the baseball game between the Akron and Cleveland Clubs, which was finally won by Akron. Numerous substitutes were used, so neither side overlooked any unknown talent. Other diversions consisted of pitching horseshoes, a tug-of-war, exploring the surrounding country, and swimming in Mr. Seiberling's outdoor pool.

The annual golf tournament between teams representing the two clubs was played off during the afternoon at The Portage Country Club and Cleveland was the winner. This was the only reason that it was not a perfect day from the Akron point of view.

A delicious fried chicken supper was cooked out-of-doors and served in the shade of a beautiful grove of oak trees. In the evening a large bonfire was built and everybody gathered around, sang, listened to stories and short talks from some of the fellows, and very appropriately enjoyed a fine moonlit evening.

The Committee in charge of the meeting deserves a great deal of credit for its success. This Committee consisted of Walter Keith, '14, Chairman, George Heathman, '22, and Chester Greening, '22.

PARRY KELLER, '15, Secretary, Goodyear Tire and Rubber Co., Akron, Ohio.

M. I. T. Association of Buffalo

On Saturday, July 11, the Niagara Falls and Buffalo Clubs held a joint picnic at Lynch's Park on the Niagara River. A baseball game, which afforded every one a chance to play, was won by Niagara Falls. As no adding machine was available the score eluded mathematicians.

A dinner on Thursday, November 12, at the Broezel Hotel was a great success. The boys are not telling their wives about it for fear that they will not be let out to the next one. A dinner dance during the holidays at the Hotel Statler is being planned to placate the fair sex.

The Friday luncheons at the Chamber of Commerce at 12:30 are well attended. Technology men visiting Buffalo are cordially invited to keep these weekly luncheons in mind.

FLETCHER H. BURKE, '05, Secretary, 681 Ellicott Square, Buffalo, N. Y.

The Technology Club of New York

The Technology Club of New York wishes to announce the recent election of the following officers and governors: President, Thomas C. Desmond, '09; Vice-Presidents, Dr. S. W. Stratton, Coleman Du Pont, '84, E. C. Lufkin, '85, J. P. Munroe, '82; Treasurer, R. B. Haynes, '13; Executive Secretary, L. A. Ford, '89; Governors until 1928, T. H. Skinner, '92, and G. S. Holderness, '22; Governor until 1927, R. J. Marlow, '17; Governors until 1926, P. W. Wiswell, '09, W. D. Binger, '16, and D. R. Linsley, '22.

It was with genuine regret that the Club accepted the resignation of Ralph Howes, who had served as its President for a number of years, and who was forced to withdraw from official duty on account of his removal to Florida. In the election of Tom Desmond, however, to carry on the good work of President Howes, the Club feels that it has made a ten-strike, and there is a general feeling of optimism for bigger and better things.

GEORGE S. HOLDERNESS, '22, Recording Secretary, 17 Gramercy Park, New York City.

News from the Classes 20 20

News from even-numbered Classes is published in issues dated November, January, March and May. News from odd-numbered Classes is published in issues dated December, February, April and July. The only exceptions to this rule are those Classes whose Secretaries have guaranteed the appearance of notes in every issue. These Classes are: 1895, 1896, 1900, 1901, 1902, 1905, 1907 and 1910 to 1925 inclusive. Other Classes adhere to the alternate schedule. Due to necessary limitation of space, The Review is unable to publish lists of address changes of members of the Association. The Alumni Office, in Room 3-209 M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

The following article of interest to our Class appeared in the New York Times, October 18: "Under the sponsorship of the President and Mrs. Coolidge, who took part in the official ceremonies, the centennial exhibition of the National Academy of Design was opened yesterday in the Corcoran Art Gallery. Members of the Cabinet, representatives of the diplomatic corps, men and women socially prominent in New York, Philadelphia and this city, and distinguished artists from all parts of the country were among the more than 8,000 guests.

"The President and Mrs. Coolidge arrived at 9 o'clock and were

"The President and Mrs. Coolidge arrived at 9 o'clock and were met by officials of the gallery and of the National Academy of Design. Escorted by Edwin H. Blashfield, ['69], President of the National Academy, and Charles C. Glover, President of the Gallery, Mr. Coolidge proceeded to the grand staircase in the main hall. Symbolizing the opening of the exhibition the President parted a heavy floral chain at

the foot of the staircase and passed up into the gallery.

"The consensus of opinion among those who attended the opening bears out the prediction of artists throughout the country that from the standpoint of its importance to American art the centennial show would be without parallel in its wealth and variety of works. Members of the Academy for the last hundred years — painters, sculptors, architects, and engravers — are represented by masterpieces. Sargent, Inness, French, Tryon, Homer, La Farge, Saint Gaudens, Alexander, Donn Barber, George Bellows, Blakelock and Gilbert Stuart — all the best known figures in the art of America for a century — are included in the roster of celebrities."

ROBERT H. RICHARDS, '68, Acting Secretary, 32 Eliot Street, Jamaica Plain, Mass.

William Hillman Shockley died in Los Angeles, May 26, but I did not learn the fact in time to note it in the July Review. He was a son of William and Sarah Durfee (Hillman) Shockley, born September 18, 1855, in New Bedford, Mass., and graduated from the Institute with the Class of '75. He was a member of the A. S. M. E.; Institute of Mining and Metallurgical Engineers; Royal Geographical Society, and Royal Society of Arts. He was married on January 20, 1908, to Miss May Bradford, and had a son, William Bradford. For several years he resided in Palo Alto, and later in Los Angeles.

I note that Thomas Hibbard has recently been elected President of the George Lawley and Son Corporation. Hibbard has been connected with the concern for some thirty years. — W. E. Nickerson was recently elected a director of the State Street Trust Company.

EDWARD A. W. HAMMATT, Secretary, South Orleans, Mass.

Arthur E. Hill, one of our associate members, died on September 7. He started in with Peabody and Stearns, and was connected with Washburn and Moen, Norcross Brothers, and others, until about 1903, when he started in for himself in Providence, R. I. He was one

of our regular attendants at all class dinners and reunions.

News of our Class Zoölogist, Ned Warren, comes to us through an article appearing in the *Colorado Springs Gazette*, January 24. The article reads as follows: "Announcement was made yesterday that Professor Edward R. Warren, formerly curator of the Colorado College museum, plans to give to the institution the Warren collection o mammals. The gift will be made with the provision that the title is to remain vested in Mr. Warren, with the understanding that the

collection will ultimately become the property of Colorado College. The collection, one of the largest private study collections of mammals in the United States, contains more than 3,000 specimens. Most of the specimens are from Colorado, many of which have been studied and named by specialists of Washington. There is a considerable number of bird skins in addition to the mammals. A room convenient to the museum will be furnished by the institution for the storage of the collection. Interested persons from outside the college and enrolled students will be permitted to examine the collection."

FRANK H. BRIGGS, Secretary, 390 Commonwealth Ave., Boston, Mass.

The writer has seated himself at his desk several times, with the intention of attempting to describe the Fortieth Reunion of the Class at Wianno last June, but in conjuring up, the retrospect has become so imbued with the delights of that happy event that mere words seemed inadequate and even sacrilegious. As a matter of fact, it cannot be properly recorded as profane history; it was rather a spiritual experience. It was a metamorphosis, or rather a rejuvenation of the old boys into the young boys of that '85 photograph. It was a reconstruction of the happiest of all happy days, and if any monkey gland concoction has the potency to preserve us as we are, so that we can have a Fortieth Anniversary every year, we are all for it.

Every member of the Class who could possibly get there, came. A few who had not met with us since time started in 1885 were present. Chief among these prodigals was our much beloved first lieutenant and adjutant, Chippy Chapman. Time has dealt lightly with Chippy. He is the same active little chap who used to click his heels and salute at the drills. He says he weighs three ounces more, but he didn't look it. And then he is just as animated and interested and interesting as of yore. And as for cheerfulness, he has never lost his smile in these forty years, even when he was so broke that he took the first job offered him: washing dishes in a country hotel in Texas! But now he is a central figure in Raton, New Mexico, where he has lived for many years. He is the King Pin Rotarian of the state and some kind of a royal exalted Pleni-potentate in the Masonic order. He has been state commissioner of education, and has held other important posts, but he likes most of all to tell of how he and Mrs. Chippy are called upon to lead the dances of the younger set. He was simply a joy at the Reunion and he radiated happiness like a sprinkler cart. It was his first visit East since he left the Institute.

The Antipodes gave us Dave Baker, who timed his return to the States so that he could be on hand at the great event. He left Australia early in March, going first to England. He has been in Newcastle, N. S. W., since 1911 establishing an iron and steel department in the Broken Hill Proprietary plant, as recorded elsewhere. Dave and Hugh MacRae didn't have their customary wrastle. Dave isn't quite what

he used to be and Hugh looked especially vicious.

Hugh, by the way, has started a movement that is fundamental in its possibilities and which is already beginning to work out most satisfactorily. We don't really understand it exactly, getting an occasional earful between duties, but the gist of it is summed up in the words "selective emigration." Hugh has been devoted to colonizing agricultural areas in the South and in order to secure skilled and industrious colonizers he has had them examined in loco. We dare not describe the astonishing results. Hugh promised to write about the scheme, but, of course, he didn't. We hope this statement is inaccurate enough to bring a comeback.

From Birmingham, Ala., came A. W. Allen, another forty-year

prodigal and a most welcome one. Allen has been for many years an executive of the Tennessee Coal and Iron Company, but he forgot that and played around like a kid. - Another regenerate (the printer will please not start that word with a "d") was F. O. Ellinger, who has been making electricity for the simple people of Pennsylvania; and you can bet it was good stuff. He never puts in any water! He did acknowledge that he was sometimes tempted but he refrained out of respect for Charlie Brown. - And then, wasn't it a joy to see Heywood Cochran? Heywood was as perfect a radiator as Chippy. We are speaking now of total radiation. Chippy had more to the square inch. Who remembers that marvelous cake we prepared for a class dinner about 1882 in the kitchen of Cochran's aunt or cousin or some relative, with a real cook to furnish the foundation? It was immense in proportions and contained, among other things, six dozen hairpins (unused), little china dolls, metal spiders and other articles too numerous to mention. And then it was decorated like a palace ceiling and when it was cut the pieces of red rubber tubing looked like angle worms!

Scuyler Greene came on from Detroit with the same funny little laugh and a capacity for perfect enjoyment. — Sid Parsons, who has been more exclusive than his classmates would like, broke his record and if he doesn't reform, we'll know he had a poor time at the Fortieth.

This concludes the list of prodigals and near-prodigals. We would be glad if we could include Fred Kingsbury, and so would he if he could understand what we are trying to say. He was on the point of hopping off when some vulgar business matter dragged him to New York.

Of course, the Wianno Club was just perfect. Every detail of table, service, scenery, atmosphere and quarters had been arranged to our hearts' desire. We occupied two cottages, headquarters being just opposite the Club itself. Here were two social rooms and a large social verandah, and with our much beloved Charlie Brown, as Social Secretary, things went on swimmingly. Time was when we demanded a program, but not in our senility. That's one thing the Secretary appreciates and has long looked forward to: in age we are just willing to "set" and get really acquainted. True, some restless spirits played what they called golf, and George Steele dressed up in various athletic regalia and tried to stir the dry bones to action. He was wrong.

Charlie Brown had the right spirit. At meals the Class had the eastern end of the dining room (which had been screened off) all to themselves, and it is fair to say that the meals were not unpleasant. One night at dinner, Bob Richardson matched President Bert Pratt for his necktie and having won, he was emboldened to challenge Dan Lufkin. Then Nat Robertson stripped his, and at the end of the meal Bob led the departing procession with a dozen fancy neckties on his arm and a grin on his phiz. He was followed by twelve stalwart, usually sartorial paragons, but now with denuded shirt fronts. The procession continued to social headquarters, while the writer remained at the Club to make some arrangements. Upon arriving at the cottage a little later he was horrified to see that insatiate Richardson with Charlie Brown's pink shirt (the mark of his calling) on his arm, while Charlie responded to the bell in undies. But horror of horrors, that same perfidious Brown had matched the Secretary's pajamas with the Israelite from Concord, and lost! Eddie Dewson who sat there in immaculate white flannels enjoyed the catastrophe raucously until Bob, enamored of Eddie's wardrobe, inveigled him to match trousers, and won. The victim retired to his abbatoir and returned in a friendly blanket, while Bob hawked his clothing store.

Jack Lyman was among those present and, of course, the canine rouge had a yip. But it was rather a tame dog and didn't get center stage. Oh, yes! Eddie Rawson won the big raffle!

On the second night we all went to the recreation building after dinner and the Secretary read letters from those unable to be present. Among these communications was one from Mrs. Don MacRae. Don was ill in a hospital, and the best wishes of the Class were extended to him. Not only were the letters read, but every name on the roll was brought up and such information as any of the members had was given. Fred Kimball then exhibited colored slides of photographs of our Twentieth Reunion at Dr. Schubruchl's camp at Squam Lake. These awoke many happy recollections.

A request from Allan Rowe of the Advisory Council on Athletics asking for a subscription of \$50 was read, and five men subscribed the amount. Then there was a call for Chippy, who rose to the occasion and entertained us for ten minutes as only Chippy can. It is not to be forgotten that the congratulations of Dave Lyle, '84, were read and a message in kind forwarded to him.

The total attendance was forty-three. Magoun came to the luncheon at the Westminster, before we left for Wianno, but wasn't able to go with us.

The reunion literature stirred Cutter from his silence of many years. He is living at Inglewood, Calif., and regretted that he was too far away to make the trip.

At the recent exposition of chemical industries held at Grand Central Palace, New York, Arthur Little was chairman of the advisory board. Arthur was recently elected a director of the Boston Chamber of Commerce.

The June number of American Industries published a picture of Charlie Richards in connection with an article on The Exposition of Modern Decorative and Industrial Art held in Paris this summer. Charlie was appointed chairman of the American Commission by Secretary Hoover, and it was because of this engagement that he was unable to be with us at Wianno.

In 1911 Dave Baker went to Newcastle, Australia, to establish the iron and steel department of the Broken Hill Proprietary Company, Ltd. He knew the game and he stuck to the job-a difficult one. The Broken Hill Company was the principal interest in the city and Dave became one of the principal factors in it. This year the department he established turned out 6,000 tons of iron and steel a week. He felt that his work had been accomplished and he returned to America. His departure was marked by expressions of universal regret as noted by the magazines and newspapers of Australia. The culminating event was a dinner of immense proportions given by the staff of the company. The speeches on that occasion would indicate that the Australians like Dave as well as we do. Anyhow, he was the recipient of parting gifts from dozens of groups connected with the great industry, one testimonial containing the signatures of 544 members of the staff. One can imagine that after such a demonstration of appreciation Dave might have wanted to stay longer, but the Class of '85 was calling, and he wouldn't miss the Reunion for the Archipelago with Asia and Africa thrown in!

Baker has opened an office at 1011 Chestnut St., Philadelphia, as a consulting engineer in connection with problems connected with the construction and operation of iron and steel works.

Richard S. Lull, Professor of Palæontology at Yale and Curator of the Peabody Museum, has recently published a book entitled "The Ways of Life." In reviewing it the Boston Herald says: "The author shows that scientists 'have no possible doubt' of the organic evolution as a fact. 'There is no other hypothesis,' he says, 'which can possibly explain all of the various phenomena of animate nature, and not one fact has ever been brought to light which is incompatible with it. But the way or ways by which evolution comes about is a matter of argument.' And as to the evolution of man, Professor Lull asserts that there is 'no possible argument to be offered against it other than one of sentiment and prejudice in favor of man's exclusion from the rest of organic nature, the fact being that his body is composed of the common matter of the universe and contains no new element or material, or even combination of elements not found elsewhere.'"

An Associated Press despatch says that Frederick H. Newell, advisor to Governor Pinchot of Pennsylvania, and former chief of the United States Reclamation Service, predicts that "the present anthracite coal strike may give the bituminous coal operators a chance to break the hard coal monopoly in the New England states."

On May 1, the Secretary received the following letter from Mrs. William H. Dawes: "It is my sad duty to notify you that Mr. Dawes passed away March 4, very suddenly, at his place of business. I want you to know that although he did not attend many of your gatherings, his thoughts were with you, as he had a warm spot in his heart for the Class of '85." Billy Dawes as a student was one of the most popular men in the Class. He was attractive in person, had a manly bearing and a happy disposition. If we remember correctly, he was a lieutenant in the Tech Battalion. It comes to mind that once in a prize drill at the old gym, his rifle struck the visor of his cap and knocked it awry. But Billy, regardless of his ludicrous appearance, which caused much merriment, never cracked a smile but carried on with absolute precision and won the prize. After leaving the Institute, he located in Brockton and got around only rarely. He was present for a day at the Thirty-Fifth Reunion, but we had not heard from him since. One of our great desires was to see Billy at the Reunion in June, but it was

After managing the Fall River Gas Works Company for thirty-five years, Joe Nute retired from active business last January. Following his graduation from the Institute, he became connected with the United Gas Improvement Company of Philadelphia. He superintended

the installation of gas plants in various parts of the country until 1887 when he was transferred to Jersey City to assist in the operation of the Consolidated Company that had just been formed. He remained there until he became manager in Fall River. Joe has been an active force in social, civic and religious circles in the city of his adoption. He is Treasurer and Director of the Chamber of Commerce; and for twelve years he has been a member of the executive committee of the Red Cross. He has been an active worker in the Y. M. C. A., and has directed several of its financial campaigns. Professionally, he is one of the best known gas engineers in the East.

Members of the Class were greatly shocked to learn of the sudden death of Charlie Eaton in Tacoma, Washington, July 22. His death was due to heart disease. Since his return to this country about fifteen years ago, Charlie has been not only very loyal in his attendance at Class and Institute functions, but he was a generous contributor to both. He moved the Class Tree from Rogers building to the Cambridge site at a very large expense, and he was principal donor to the '85 flagpole — one of the two standing in the great court of the Institute.

In 1915 he was host at a dinner to which he invited the whole Class. It was held in the upstairs dining room at Young's, where our first Class dinners were held. His interest in the Institute was keen, particularly in the Department of Civil and Sanitary Engineering, where he had been an instructor after graduation. He established intimate relations with instructors and pupils. Many have reason to be grateful to him for the practical assistance he was glad to extend, as well as for constructive suggestions.

He took particular interest in the summer surveying camp near East Machias, Me., to which he was a large contributor. He visited the camp every year and on one occasion he was so impressed with the need of separate quarters to house the instructors, that he gave instructions to have a suitable building erected and send the bill to him. The letter "E" cut in the stone above the fireplace is a symbol of the appreciation of Technology men for the comforts made possible by his gifts. His will gave the greater portion of his estate, estimated at \$300,000, to the Institute to be invested in a fund to be known as the Charles W. Eaton Fund, and to be used for general purposes.

Charlie had an interesting history. After teaching at Technology and the Pratt Institute, he became engineer for a dredging interest of which he soon rose to be the head. He completed many large contracts for the Government including dredging the harbor of San Juan, P. R., Mobile Bay and other extensive works on the Gulf coast. After retiring from business, he returned to his old home in Haverhill. After the death of Mrs. Eaton some ten years ago he devoted himself to travel.

The funeral services were held at the home of his brother, Edward O. Eaton of Haverhill. Flowers were sent on behalf of the Class and Charlie Brown and the Secretary attended.

We are called upon to record the death of John M. Grosvenor, Jr., on October 10. He was born in Woburn, April 22, 1864, son of John Milton and Mary True (Paul) Grosvenor. He was educated at Chauncy Hall School and the Institute. In 1894 he married Miss Lillian Munson Pitman of Swampscott, who survives him. He was a member of the firm of J. M. Grosvenor and Company, manufacturing chemists; and Treasurer of the Annals Publishing Company. He lived in Swampscott for forty years and was former chairman of the Republican town committee and former park commissioner.

He served as a district representative in the General Court in 1904 and 1905 and as a senator in 1906. In 1907 he became an Essex county commissioner.

I. W. LITCHFIELD, Secretary, 10 Kenmore St., Boston, Mass.

Carroll S. Dunphe died on September 8. He had spent his vacation in Maine in August, and celebrated the thirtieth anniversary of his wedding there, on August 21. He seemed very well and happy. He went to

White Plains to spend Labor Day with some friends, and when returning to New York the day after with his friend he passed away on the train. Mrs. Dunphe was in North Edgecomb, Maine, and he was taken there for interment. Two married daughters survive, and one son, who is in high school. The Class had no more loyal and devoted member than Dunphe. He always attended the reunions when he possibly could, and he had the happy faculty of making others enjoy them as much as he did himself.

A New London paper has the following regarding Lyman B. Pendleton, whose death was recorded in the Secretary's last letter: "With many friends in attendance and an abundance of floral tributes, the

funeral of Lyman B. Pendleton, well known traveler and former local newspaperman, was held at 11 o'clock this morning at the funeral parlors of Robert H. Byles, 15 Masonic Street. The Rev. James Romeyn Danforth, pastor of the First Church of Christ, officiated and Secretary James G. Hammond of the New London Chamber of Commerce, in a eulogy, paid a glowing tribute to the man whose life was cut short by a shock, before he had seen fulfillment of his desire to see New London a port of maritime importance, connected by steamship lines with South America. Mr. Hammond reviewed the life and labors of the late Mr. Pendleton, told of his foreign travels throughout the world and the return, saddened by the realization that his property holdings, whose care he had entrusted to a friend, had been sold; and then of his untiring efforts to link the port of New London with South American ports. The pall-bearers were Spanish War veterans: Albert P. Ware, Col. Henry S. Dorsey, William Baseley and David Conner. Burial was in Cedar Grove cemetery.'

Frank L. Dame is President of the North American Company which has just acquired the Western Power Company, a \$100,000,000 corporation, under a securities exchange plan. The aggregate assets of the two companies are about \$476,000,000, a rather tidy sum, and the deal is said to be the largest of its kind since the transaction between the Associated Gas and Electric Company and the Pennsylvania Electric Corporation several weeks ago. Deals of this kind are simple matters for Frank, however, for the above North American has taken on the \$50,000,000 Mississippi River Power Company, and now makes possible the largest super-power system in the Middle West, extending from Keokuk to the lead belt of Missouri, a distance of 250 miles.

Frank's son, Frank E., entered the Institute this fall and is scheduled for Course VI. His two younger brothers will be allotted to '33 and '46 respectively.

The Secretary broke away this summer and with his oldest boy, Walter H., Jr., Harvard, '25, slipped across for a look at the Decorative Arts Exhibition in Paris and an architectural trip through Northern Spain and the island of Mallorca. Spain is certainly the land of magnificent surprises in mediæval architecture. Every town is different, and every one surprising. Segovia, Avila, Toledo and Burgos are probably unequalled anywhere in this respect. Madrid and Barcelona contained many suggestions and are good examples of fine modern cities, but the city of Palma de Mallorca, 150 miles off the coast from Barcelona, was perhaps the most interesting part of the trip. The island contains high and jagged mountains, picturesque villages and much fine architecture, and is inhabited by a kindly and intelligent race, who do not see many tourists and have not learned the arts of extortion. In fact, \$2.25 per day is the most one could possibly spend there for a living.

As casually seen, Spain seems to have improved a great deal since the Secretary's first visit in 1894. Railway trains were on time and sufficiently fast, and nearly all the hotels had employed a plumber, with great benefit to the guests. The roads were in good condition for motoring and vino tinto, perfectly good, was dispensed by the hotels at twenty-two cents per bottle; the waiter at Palma refusing to sell any higher priced wine until this had been tried.

The Decorative Arts Exposition was also a source of much inspiration, though confusing in its general aspect. The development of the architectural uses of glass was one of its most interesting features. It is unfortunate that the United States felt unable to participate in this truly magnificent display of modern thought in architecture and decoration.

WALTER H. KILHAM, Secretary, 9 Park Street, Boston, Mass.

Harry Young was in France, Belgium and England for some two months this summer and the Secretary received a letter from him in June. He ran across Bassett in Brussels. Bassett had been making a trip on the Continent for the American Brass Company. Harry went to the Argonne and took part in the exercises at the American Cemetery there, and he and Mrs. Young went over the American battlefields with Lieutenant Nason, a magazine writer, and said that he had a most interesting trip. He attended an International Meeting of Rotary Clubs in Paris and met delegates from a number of foreign countries. In Brussels he attended the International Chamber of Commerce Convention. The King of Belgium was present and diplomats representing all of the European countries. Harry suggests having a meeting shortly to get ready for our big Reunion next year.

A more recent letter from Harry announces the safe arrival of a new grandson, Richmond Young Holden, named after his boy who was killed in France. Harry says that Steve Bowen is developing into a regular golf player. The Secretary has been a golf bug for many years and has always contended that it is never too late to start. It looks as if we would have one more golf recruit for the next Reunion.

George Hooper writes from Pasadena that he is out of city work on account of a recent election and that he is now a man of leisure. He expected to spend the summer in Santa Barbara but the earthquake made this an undesirable place for the time being. His family were five miles from the city at the time and were badly shaken up, but not hurt. He extends a cordial invitation to all '91 men who may go to the Coast to visit him.

The Secretary recently learned of the death of George Mansur who formerly lived in Lowell, Mass. No further information has come to hand at this writing.

A letter from Barney Capen says that he is feeling much better, having gained in weight and strength, and is getting about more.

This will be good news for all his many friends.

Mr. W. Warner, President of the Warner-Caldwell Oil Company, Nowata, Okla., sent to the Alumni Association notice of the recent death of Henry Fox in St. Louis. He was not on the Secretary's list of '91 men but was listed by the Alumni Association as a member of our Class. He was connected with several of the western railroads, was in the Army for several years, and after the War was connected with the big water project in Tulsa, Okla. From there he went to the State Highway Department and was located in Nowata for several months on survey work.

Garrison's son, Robert, is chief engineer for E. J. Wiley, a large operator in the oil fields of the Los Angeles district. He has just completed drilling the deepest oil well in the world —7591 feet

deep.

Howard Forbes has returned to Boston and is staying at the Craigie Apartments, Cambridge. — Arthur Alley spent the summer at Scituate, and is now spending the winter in Europe with his sister.

F. Clouston Moore has sent in notes on some of the '91 men in his territory. Harmon Wendell, for example, is now located in Detroit, Mich., at 3714 Seminole Ave. He wrote Moore as follows: "As for interesting items re this particular ego, alas, there are none. My life is as uneventful and humdrum as Detroit's traffic will permit. I am in the real estate business on the office staff of The Glover Watson Organization. It's a charming job! When anything gets tangled alt'hel, they holler for Wendell. When something gets in a hopeless and inextricable jam, it's, 'Where's Wendell?' When a disgruntled customer comes down to the office howling for vengeance because he has discovered that his lot isn't right next door to a skyscraper, it's, 'Better let Wendell talk to him.' When the land-baron farmer, who has sold his \$10,000 farm for a \$150,000, and who lives thirty-five miles from the City Hall, up a side road six inches deep in mud and impassable to anything but a caterpillar tractor, has to be called on and persuaded to do something that he has sworn by all the nymphs and dryads of his native woods that he'll never do, the Official Goat is sent out to stroke his chin whiskers the right way and make him sign on the dotted line.

"As to being married, why, my dear boy, I have been married so

"As to being married, why, my dear boy, I have been married so long that I feel as if I had been born married! I have the loveliest wife in the world and a very charming daughter, twenty-one years old, who has just started her senior year at the College of The Sacred Heart (Manhattanville) New York. She is exceeding fair to look upon and is endowed with an intellectual mind, inherited from her paternal grandmother. (It skipped me, alas!) Also I have a son who was fourteen last month and is already bigger than I am. He attends

St. Charles Parish School."

A letter from Charles H. Urban to Moore reads as follows: "Not married. Sorry. Don't think I have any children at school. Sorrier. Spent my vacation in Canada, Met nothing but fish. That excludes all '91 men. For the last six months have been drilling away in a wormy

old law-office. Likewise, the last twenty-five years.'

Here is some news from A. C. Smith, quoting from a letter to Moore: "The business which was my avocation in boyhood became my vocation later. After twenty years or so in commercial enterprises I came here as chief of the Division of Poultry Husbandry, which position I still occupy. My work requires me to travel considerably in this territory but I naturally do not come into contact with Tech men. The last six months I have been sticking to the job as usual and fancy

these few items are of no particular interest but will absolve you from guilt before Judge Fiske."

A clipping from the Michigan Daily of April 22, 1924, gives some further information about our classmate Louis Boynton, who died

ast year:

"Professor Boynton was born in 1867 at Guilford, Conn., and studied architecture at the Massachusetts Institute of Technology. After leaving that school he entered the office of Peabody and Stearns, architects, of Boston, winning the Rotch traveling scholarship in architecture in 1896. This gave him two years of study in Europe. Part of this time was spent in Italy, where in 1897 he married. After his return to this country he was for a time with Shepley, Rutan and Coolidge, Boston architects, and subsequently with McKim, Mead and White and with Cass Gilbert of New York City. With Mr. Gilbert his principal work was on the Union Club and on the New York Customs House, where he had charge of the interior. From 1908 to 1912 he practiced his profession as architect in New York, coming to the University of Michigan at the end of that period.

"His teaching here has been in the field of architectural design, in which his training and experience on important undertakings, according to his associates, was of great value. As a practitioner he has been very active and has done some Ann Arbor residences, several fraternity houses, and also the new James B. Angell school on South

University Avenue.

"Professor Boynton was a member of the board of directors of the Ann Arbor Art Association first in 1917, being President of the Association in 1920–21. He is survived by Mrs. Boynton and three children, Louise, Lucia and George, and by three brothers, H. W. Boynton of Bristol, Conn., Professor Percy H. Boynton of Chicago University, and G. H. Boynton of Boston."

Arthur Hatch and the Secretary still spend their summers at Barrington on their luxurious estates and are fast becoming prominent citizens in that township. Arthur is in the dredging business and owns considerable waterfront which he is gradually making into a second

Palm Beach. Come down and see us.

Albert Pierce writes that he is now director and agent of the Pierce Manufacturing Corporation of New Bedford, and Pierce Brothers, Ltd. He is also a director of the Merchants National Bank of New Bedford, trustee of the Five Cent Savings Bank, and member of the Research Committee of the National Association of Cotton Manufacturers.

The Secretary has secured considerable notoriety in the city of Providence due to a paper read before the Providence Engineering Society. The following appeared in The Standard of Boston, October 10: "The congested or main business district of Providence, R. I., presents one of the worst fire hazards in the country, a hazard which can be eliminated only by extensive expenditure, voluntary or by municipal compulsion, upon the part of individual property owners, according to Henry A. Fiske, Chairman of the Fire Prevention Committee of the Providence Safety Council, as reported in the Providence Journal Thursday. Mr. Fiske's unqualified arraignment of conditions in downtown Providence was given in the course of a comprehensive paper in 'Fire Dangers in the City of Providence and Their Remedy,' presented Wednesday night before an open meeting of the Providence section of the American Society of Mechanical Engineers held at the rooms of the Providence Engineering Society at 44 Washington Street, as a feature of Fire Prevention Week. The establishment of a fire prevention commission, headed by the mayor and including in its membership both city officials and representatives of engineering and civic organizations, was recommended by Mr. Fiske. The recommendation, with other proposals, was formally endorsed at the meeting by the adoption of a resolution submitted by L. D. Burlingame, President of the Providence Safety Council. 'I wish to make this important statement,' said Mr. Fiske. 'The remedy for this menace to our city and community lies in determining the conditions in each individual property and then requiring the necessary safeguards, not only to make the individual building relatively safe, but also properly to protect against exposure fires.

"Publicity on existing conditions and education of the public mind along fire prevention lines were urged as necessary to the awakening of the community and the correction of menacing conditions. It was recommended that an engineering survey be made of the congested district and other important buildings to determine what improvements were necessary to bring about reasonable safety from fire, both from the standpoint of the conflagration hazard and safety to life."

Henry A. Fiske, Secretary, Grinnell Co., 260 West Exchange St., Providence, R. I.

'93

At the 125th annual commencement of Middlebury College, the honorary degree of Doctor of Science was conferred upon our classmate, Ernest Calvin Bryant, Professor of Physics at that College.

August brought callers from New York to your Secretary. They were Jack Ashton, and the James A. Emerys, Senior and Junior. Since then Emery has sailed for Europe. He will spend about three weeks in

England and another three weeks on the Continent.

The Class has been honored, through the election, in October, of Francis W. Fabyan to life membership in the Institute Corporation. He had recently completed five years' service as an alumni term member of that body.

Among the eight Boston and Cambridge men appointed as local representatives of the Engineering Foundation, whose national head-quarters are in New York, there are two '93 men: Frederic H. Fay and

Charles M. Spofford.

Under the title "A Professional School of Engineering": "an analysis of the Curriculum and Underlying Philosophy of the six-year course in Chemical Engineering at Columbia" is given in Chemical and Metallurgical Engineering. It includes this paragraph: "In 1911 there appeared at Columbia a professor of chemical engineering, named M. C. Whitaker. Whitaker conceived the chemical engineering course at Columbia and under the impulse of his virile personality it took shape. The present course is a logical development of his ideas, with the modifications that have been made possible by the addition of capable men to the staff now under the leadership of D. D. Jackson." Jackson, '93, is the executive head of the Department of Chemical Engineering of the School of Mines, Engineering and Chemistry at Columbia University.

The latest addition to a '93 family is that of a son, Harold Ronald, born to Mr. and Mrs. Charles H. Johnson of Sarasota, Fla., on Aug. 4.

FREDERIC H. FAY, Secretary,
200 Devonshire St., Boston, Mass.

GEORGE B. GLIDDEN, Assistant Secretary,
P. O. Box 1604, Boston, Mass.

It is necessary that the Secretary get in intimate touch with every '95 man, so that monthly reports of your doings and your whereabouts can be made through The Review. This can only be accomplished by dropping a line to L. K. Yoder, Ayer, Mass., sending along information about yourself or any other '95 man. There is nothing so trivial but what it will interest some of your classmates. Get busy,

open up, and let us hear from you.

John D. Moore of New York blew into Ayer the other day and we had a most delightful visit with him. John had just completed a much needed rest in the woods of Maine, and is a new man again. He contemplates new adventures, and we wish him the greatest of success.

We will get his card later.

Frank Brininstool of Los Angeles, Cali., is now President and General Manager of the Brininstool Company, paint manufacturers, which operates in central and southern California and adjacent territory. He was in the East, attending the Convention of Paint and Varnish Manufacturers at Cleveland, Ohio, and took the time to visit Boston to look over the great changes which have occurred at Tech since he left it some thirty years ago. He called on Tom Booth and Wallace Brackett. We hope Frank will come East often.

We have just heard from our good ex-Secretary-Treasurer, Frank A. Bourne, who has returned from a summer in Europe. Here is his letter: "Yes, I have been back two or three weeks after a summer Ford-ing southern England, spending considerable time among gardens and picturesque villages near Bath and Oxford, where Philip was tutoring for entrance examinations, and — he is now in Tech, a freshman, in Course IV. While he stayed at Oxford, Mrs. Bourne and I went to Paris. She made a sketching trip to Le Croisic, and I went to Berlin where I had letters of introduction to men who had to do with the planning of their new transit system, particularly from the architectural end. I cannot say I entirely like the style, but the system was new and marvelous.

"On the steamer I was delighted to receive a letter with the signatures of everyone who was present at the Plymouth Reunion. Unfortunately, I left my '95 addresses at home, and hope this excuse for not corresponding, and that of a busy summer, will be accepted by those who made the Reunion such a memorable success.

"It seems a long jump from the usual house and church and commercial work an architect gets nowadays, to the transit and port and regional planning that so many architects are working on in Europe, but the larger plan needs a similar sort of study to the smaller plan. In our country we have been getting altogether too little of the farseeing plan."

Quite a number of '95 men have tripped abroad this summer and we hope for letters from them for The Review. Don't forget to answer promptly the next questionnaire which will reach you shortly. The world must know what we are doing!

LUTHER K. YODER, Secretary, Chandler Machine Co., Ayer, Mass.

Very little additional news has come in since the last issue. One very important event was the apppearance of Lou Morse in Boston; the first time the Secretary had seen him since his graduation, twenty-nine years

ago. The occasion of his visit was the meeting of the American Welding Society at Technology in October. Morse came up to participate in the meetings and to carry out his duties as a member of the Corrosion Committee of the American Society of Refrigerating Engineers. Unfortunately, his time was so fully occupied that he did not have much to spare for his classmates, but he did make short calls on the Secretary and on James. The most welcome information from him was that, if he lived, he was coming to our thirtieth anniversary celebration next June. He had planned to attend past celebrations but always something had come up to cheat him out of them. Morse holds his youthful figure although time has whitened his hair. It was easy for the Secretary to recognize him after the interval of twenty-nine years. He reported that he sees Con Young frequently on trips which the latter makes from Washington to York, these trips being quasi-business trips, although the great incentive appears to be the golf course at York and an evening of song and music at Morse's home.

The Secretary made a flying trip to New York in October and having about fifteen minutes' spare time before the train left for home, he ran around the corner to Woodwell's office but, unfortunately, found him absent. His secretary stated that he had been under the weather and unable to attend his office regularly but that it was hoped the worst was over and he would be back on his feet again shortly.

The Wanderlust has again attacked Myron Fuller, and he and Mrs. Fuller left on October 17 via the Booth Line Steamer Alban for Para, Brazil. Here they will transfer to a river steamer and go 2,000 miles up the Amazon River to Iquitos in Peru. The Secretary wished them bon voyage by mail and allowed them to make the trip on condition that they keep the Class posted regarding their movements and the interesting things which they see.

Jacobs, in his trip across the country, has been very good and has sent regular reports. At last accounts he and his family had reached

California and were motoring through the Yosemite.

One item that the Secretary failed to note in the previous issue was a meeting with Russell Porter at the summer home of Professor Harry Gardner in Milton, N. H., at the end of August. Porter was then on his way by automobile to Maine where his family had been spending the summer at his cottage on Land's End at Port Clyde. Porter is so wrapped up in his interesting work with the Jones and Lamson Machine Company at Springfield, Vt., that he begrudged even the time that it took to go to Maine for his family and the Secretary is almost in despair of being able to get Porter to attend the celebration next June. If any classmate has any influence over Porter to drag him away from his work, the Secretary will be happy to have this influence exerted to the fullest extent.

Mort Tuttle reports that his company is finding plenty of work. His big job is in connection with the \$6,000,000 contract for the hydroelectric plant at Lewiston, Maine. This is for the Central Main Power Company controlled by the Insull interests and involves a construction period now estimated at two years.

CHARLES E. LOCKE, Secretary, Room 8–109, M. I. T., Cambridge, Mass. John A. Rockwell, Assistant Secretary, 24 Garden St., Cambridge, Mass.

At the last class reunion at Hugh Moore's it was voted that we send out a questionnaire to the members of '97 in order to get a line on their activities and migrations since spreading their wings. We have replies from about fifty to date, and while '97 still maintains its reputation for modesty in relating its own experiences and achievements, extracts from some of the returns are very interesting.

Jack Ilsley spent several months in Russia just before the war and writes as follows: "My visit to European Russia from March to August, 1913, was on business in connection with the sale of American machinery. It was an experience never to be forgotten, in view of later events, to see that interesting country under the old régime. While most of my time was spent in St. Petersburg and Moscow, I went as far East as Nijni-Novgorod on the Volga River, and as far South as Bejctza, in the province of Orel, the home of the large locomotive works. Russia at that time was at its height of industrial development, and had many large works, conducted for the most part by German engineers. These works included the next to the largest small arms factory in the world at Tula, also locomotive and car works. Many of these were extensive, with thousands of workmen, but were after all merely large jobbing shops, as mass production was practically unknown in Russia, and the word 'efficiency' meant nothing to the works manager, nor to any one else in Russia. The higher class Russians were charming socially, and the men seemed like big overgrown boys. They were more like Americans than any other Europeans.

Owen Gray, although located at Salt Lake City in the midst of the Mormons, has been rather backward in matrimony, having married Elinor S. Kimball on January 14, 1924. Herewith Gray's thumbnail sketch of his career: "Manager of Mutual Telephone Company at Des Moines, Iowa, for two years. Since that time I have been practising as a consulting Engineer with office in Salt Lake City. Have designed and built a dozen or more hydro-electric plants among many other things. I am also a member of the firm of Gray and Murdock, engineers and contractors. We have built pipe lines, buildings, dams and industrial plants. Our latest work was the design and construction of an ore sampling mill, as described in the Engineering and Mining Journal Press for August 15. I invented an entirely new ore sampling machine, which is operating successfully in this new mill. None of my achievements has been very large or spectacular, but they have been interesting, profitable to me, and, I hope, useful to others. While far from rich, I have a comfortable home in the best part of our city, belong to the principal clubs and have a lot of good friends. My moderate success out here in the great open spaces, while living in a city of this size (130,000) has given me more happiness and contentment than a much larger and more important career in the crowded and expensive East, I believe."

William Albert Kent, Colonel, U. S. Army, gives us the following sketch: "I was with the U. S. Geological Survey in the Black Hills as rod- and chainman. I then went to Washington, D. C., and worked in the D. C. Engineering Corps, officially a chainman but actually running the instruments. When the Maine was sunk I enlisted in the National Guard, and went from there to the Volunteers, and thence into the Regular Army. After being mustered out of the Volunteers, I accepted a commission as a Second Lieutenant of Infantry, June 30, 1899. In this capacity I was detailed in the Signal Corps from 1904 to 1908. I was detailed to the Adjutant General's department in 1921 and transferred to that department in 1922.

"In August, 1917, I was stationed at Fort Sill, Okla., as director of the Small Arms Department of the Infantry School of Arms, which was then being reorganized and enlarged. Next I was appointed Lieutenant Colonel in the National Army - my regular rank was Captain - and I was sent to Camp Pike, Ark., in command of six battalions of draft troops until the 87th Division Officers' School was formed, when I was detailed as Assistant Commandant, which made

me responsible for the instruction.

"In February, 1918, I was ordered to Fort Sam Houston, Texas, as instructor in a school for National Guard Field Officers. When this school closed in April, I was ordered to Camp Gordon, Ga., where I organized and commanded two replacement regiments until the Central Officers' Training School was formed, when I was detailed as Senior Instructor (there being no Assistant Commandant provided for) in charge of instruction. Just as the first class graduated, in August, 1918, I was appointed Colonel and ordered to Camp Greene, N. C., to organize the 810th Pioneer Infantry. Just as this was fully organized and ready to go overseas the Armistice was signed, so I was mustered out by Christmas and stationed at Camp Greene as Executive Officer until February 28, 1919, when I went to Knoxville, Tenn., on recruiting duty.

"To ask an army officer to describe any interesting events in his travels is to ask him to write a book. However, I will give a

few.
"I was in Honolulu on July 4, 1911, when two British Navy vessels
This was the first time remained in the harbor and fired a salute. This was the first time since the Revolutionary War that British men-of-war had remained in a U. S. harbor, or even in a foreign harbor where U. S. Navy ships were to fire a salute, on any fourth of July.

"I went to Veracruz, Mexico, with the Army in 1914, when we were met with scowls and muttered curses. When we left in November, seven months later, grief was the principal emotion because, as they said, they had had more safety, better administration and more money since we had been there than ever before."

JOHN A. COLLINS, JR., Secretary, 20 Quincy St., Lawrence, Mass. CHARLES W. BRADLEE, Acting Secretary, 53 State St., Boston, Mass.

Miles Sherrill is spending the academic year at the California Institute of Technology in Pasadena, Calif. doing special research work with Dr. A. A. Noyes, -The latest news from Arthur Hamilton is that he has gone to India for some special studies. — W. E. Parker had an interesting three months' trip to the Philippines and China. - Charles A. Smith has been located in Atlanta since graduation. The Secretary met him there recently while visiting the Georgia School of Technol-

ogy. - Norman Seavey announces the arrival of Eleanor Butler Sea-

vey on October 8.

The following article will be of interest to members of the Class: "Professor Earl B. Phelps, formerly connected with the Massachusetts State Board of Health, has taken up his new duties as Professor of Sanitary Science at Columbia University. Phelps has had long experience as a sanitary engineer and was associated with important public works in this state. He did notable work at the Lawrence experimental station from 1889 to 1903. Later he was chemist and bacteriologist of the sanitary research laboratories at the Institute, and was Assistant Professor of Chemical Biology there from 1908 to 1913. He also held important positions with the United States public health service."
From the Logan (Utah) Journal, June 5: "Sylvester Q. Cannon, for

the last eight years President of Pioneer stake of the Church of Jesus Christ of Latter-day Saints, has been chosen bishop of that organiza-

W. MALCOLM CORSE, Secretary, 706 Otis Bldg., Washington, D. C. A. H. BROWN, Assistant Secretary, 53 State St., Boston, Mass.

Last summer the Secretary was the guest of the Tech-

nology Club of New Hampshire at its annual field day at Three Rivers Farm, Dover, N. H. For some years he had heard of the wonderful times to be had at these celebrated gatherings, and when the opportunity to be present was proffered, he let no time escape in accepting the invitation. It was a delightful party and will probably be chronicled in the November issue of The Review, which at present writing has not appeared. The point in speaking of it lies in the fact that three 1900 men met there, one of whom has been lost to the Secretary for many years. Fred Emery he had expected to see, for Fred is one of the high cards in that New Hampshire deck, and it was fine to see him again and discuss the big Reunion which had just occurred on the Cape. But when, during the ball game, the Secretary finished a run by landing in the arms of Harry Learnard, who had slipped in unannounced, his surprise and pleasure was complete. For twenty years Learnard's genial face had been missing, and to bump into him so unexpectedly was fine. For some years he

general manager. Of late he has been connected with the Great Falls Manufacturing Company of Somersworth, N. H. The news of the success of the Twenty-Fifth Reunion made him solemnly swear that he

was with Seth W. Fuller, electrical contractor in Boston, serving as

of Emil F. Vogel. Years ago Vogel called on him when the latter was in New York, but it was surely years ago. Yesterday a friend called him on the telephone and wanted to know if he had heard what had happened to Vogel. Expecting to hear something alarming he held his breath and answered in the negative. Well, it seems that Vogel has lately been promoted to assistant superintendent of the East Youngstown, Struthers and Hubbard plants of the Youngstown Sheet and Tube Company, Youngstown, Ohio. Now the Youngstown Sheet and Tube Company is the third largest steel industry in this country, being surpassed in size only by the United States Steel and the Bethlehem companies. To be the assistant superintendent of three of its impor-

tant plants is to have a real job and we hasten to congratulate Vogel

would never miss another such opportunity. There is another fellow the Secretary would like to see, in the person

and pat ourselves on the back for having him as a 1900 exhibit. If a fellow ever deserved success Emil does, for he has worked hard in his chosen field. Somebody who reads this and knows Vogel well is going to sit down and write for this column some interesting facts about him. 'Tis the only way we shall ever get them into print for the man himself is as modest as a penny in the U. S. Mint.

Daniel S. Johnson made the trip East from Nevada just too late to attend the Reunion. He spent some time in Boston and visited the Institute but was unfortunate in not finding any of the fellows about. He also was in New York and visited the Summer Mining Camp at Dover, N. J. In Washington he called on Morris and got the latest bits of Class news. On his return trip he stopped in Idaho, where he has interests in a promising placer-gold property. The latest report is that he arrived back safely in Tonopah, Nev., and was delighted to be away from the wilds of the East and back to Western civilization again.

To the Class in general and particularly to those who journeyed to Cape Cod this summer, the following will be of much interest:

"A tea was given at the Winchester Country Club on Tuesday, October 20, by Mr. and Mrs. Stanley Gay Hyde Fitch of Winchester to announce the engagement of their daughter, Miss Katharine Hyde Fitch, to Mr. William Babson, son of Mr. and Mrs. Robert T. Babson of Gloucester. Miss Fitch graduated from the Buckingham School in Cambridge, after which she attended the May School. She is also a provisional member of the Junior League. Mr. Babson is of the class of 1925, Harvard, having prepared at Kent. He is a member of the Institute of 1770, also the Hasty Pudding and Styx Clubs." Our congratulations and best wishes are herewith presented to Miss Katharine.

Allan W. Rowe, Secretary of the Advisory Council on Athletics, is seeking to obtain subscriptions of \$50 from each class as a very necessary contribution to the support of athletics. Many of the classes are making such a subscription and if the total be made up of small amounts from a few individuals, the burden will not be heavy. Your secretary makes a plea for twenty-five subscriptions of \$2 each and will make acknowledgment of the same in the next number of The Review. Let's go!

George E. Russell, Secretary, Room 1-272, M. I. T., Cambridge, Mass.

A number of clippings have reached me recently concerning Arthur Jewett. Jewett has recently been appointed director of the College of Industries at the Carnegie Institute of Technology. I quote from the Iron Age: "Arthur C. Jewett, engineer and authority on industrial education, has been named director of the College of Industries at Carnegie Institute of Technology, Pittsburgh, for the coming college year. He was graduated from Massachusetts Institute of Technology in 1901. During the next two years he was employed as engineering draftsman with the American Bridge Company, then becoming an instructor at the University of Maine. Two years later he was head of the department of mechanical engineering, remaining in that capacity for ten years. Returning to industry, he joined Bird and Son, East Walpole, Mass., as engineering manager and two years later he became associated with the Winchester Repeating Arms Company, serving from 1916 to 1924 as production superintendent of the cartridge department. He was superintendent of engineering and personnel, and also manager of inventories and budget control, after the company's absorption of the Simmons Hardware Company. In June, 1924, Mr. Jewett joined the research staff of the National Industrial Conference Board on the study of relation of engineering education and industry."

Bill Sweetser, who was the life and soul of the 1924 Reunion is Jewett's successor at the University of Maine and is making a most enviable record there.

Denny Haley, who was heard from last spring after many years of silence, has resigned his position as manager for the American Metal Company at Joplin, Mo. He has just organized the American Prospecting and Mining Company, composed largely of Kansas City and Eastern capitalists, and plans to do extensive development work on a number of leases which the company controls.

Not long ago a representative of the Boston Morning Globe visited Hawaii and among the prominent Americans whom he met there was Horace Johnson, now Vice-President of C. Brewer and Company. Horace has had twenty-five years' experience in the islands and has apparently become one of the pillars of the community. There is a rumor that he has two sons in Technology. As they have not yet been brought to my knowledge officially, I am somewhat skeptical of this statement. It is, of course, possible that the maternal influence has checked an exuberance for which we all remember Horace tenderly.

A. L. Galusha under the date of August 3 sends me a card to say that he will not attend the Reunion on June 8, 9 and 10. While it is always pleasant to get word from former members of the Class, in the present instance the poignancy of disappointment is not tempered by the delay. In fact by the time the Reunion had come to an end I had suspected that some such matter was toward.

Joe Evans is stirring up a very wholesome interest in our Twenty-Fifth Reunion among his classmates in New York. Joe recently sent out letters to sixty-one members of the Class to call a meeting to discuss ways and means. He writes me that he is getting a most gratifying and enthusiastic response. Your Secretary has also called a meeting of the local group and by the time this goes to press plans for the gathering will have been formulated.

Early in the summer I received a very pleasant letter from Bill Vermilye who is now Vice-President of the National Aniline and Chemical Company. Bill is keen for the Reunion and says that he is to make his maiden attempt at attending one next year.

Henry Marcus also wrote in this summer and got in touch with the Class once more. Marcus heads a company which acts as broker, specializing in the commercialization of patents. From his letter I gather this involves both the study and investigation of experimental plants and the placement and sales of the results of these studies.

Carl Johnson, another of our far western members, sends his address as 751 South Hudson Ave., Pasadena, Calif., and states that he is retired. Had he said retiring I could have well understood it in the light of the long silence that has bridged the years. But the word retired suggests a finality. Of course, Al Higgins retired a while ago. That only meant that Al wanted a little leisure time in order to become the strawberry king of Maine. This happy prospect having come to fruition (western papers please copy) Al is now looking for an opportunity to emerge from his retirement and I should not be surprised to receive word from him any day that he has once again taken public utilities under his protecting ægis. Incidentally, the strawberry is a luscious fruit, filled with possibilities that need not be elaborated here.

ALLAN W. Rowe, Secretary, 4 Newbury St., Boston, Mass. V. F. Holmes, Assistant Secretary, 131 State St., Boston, Mass.

Jim Mahar is no longer connected with the School House Department of the City of Boston, but the way in which this came about reflects credit on our classmate. Jim started as draftsman in the School

House Department over twenty years ago, working up to the position of chief engineer of the Heating and Ventilating Section. Several years ago he was appointed by Mayor Peters as a member of the Commission, which position he has held until this summer. The term of the Chairman of the Commission ran out and the Mayor reappointed the incumbent, but the Civil Service Commission declined to certify that the appointee was qualified. The Mayor insisted on considering his man to be Acting Chairman, but when the Law Department told him that contracts signed by this man would not be legal, His Honor asked the other members of the Commission to elect Mahar as Acting Chairman. Jim declined the arrangement, saying that the Mayor's appointee either was, or was not Chairman. If he was Chairman, he should act as such. If he was not, then he, Mahar, felt that he would be abetting an illegal act if he served as Chairman, while the other man nominally occupied the position. This logical stand on Jim's part vexed the Mayor and he informed Jim that he was fired. Jim replied, "Then, of course, Your Honor will send me the customary written notice of removal." To which the Mayor assented. When His Honor cooled off, he realized his mistake in removing thus so valuable and popular a public servant as Jim had been, and did not issue the written notice but sent an emissary to tell Mahar to forget the matter. Jim, however, refused to act as a member of the Commission after his verbal removal, and finally the Mayor formally removed him in writing, stating that it was for being absent from the office. The Finance Commission scored the Mayor severely for the whole proceeding, and stated that Commissioner Mahar had been "a faithful and efficient public servant and his removal was not in the best interests of the City." When one knows the type of scathing criticism which the Finance Commission is wont to hand out, this rather restrained language concerning our classmate sounds almost like abject flattery. Mahar is now giving all his time to his private practice as a Heating and Ventilating Engineer, with offices at 18 Tremont Street, Boston. We are not worrying about Jim's future through losing a city job, but it is a pity that one who has given so many years of loyal and efficient

work in the public service should be treated thus, because he took a logical and honorable stand which interfered with the plans of a very

able, but unscrupulous, politician.

Les Millar is connected with the C. A. Dunham Company, 230 E. Ohio St., Chicago. Les is President of the Technology Club of Chicago, and is a member of the Executive Committee of the Eastern College Association, an organization which he was active in organizing in Chicago, and which aims to develop interest in the Eastern Colleges, and to get the Chicago alumni of these institutions into pleasant acquaintance.

The Sawyer Construction Company, (that's Adrian), is doing an increasing business. They are, at this time, completing the Christian Science Church in Newtonville, as was noted here some months ago; also a store alteration on Newbury Street, just across from the old site of the Institute, for Edward F. Kakas and Son. — Roger Greeley was the architect for this job. The Sawyer Construction Company has recently taken a contract for a nine story addition for the Salada Tea Company on Stuart and Berkeley Sts., (this is part of the old railroad yard as we knew it). Adrian has sold the house which he built on Waban Ave., some years ago, and is building a house on Beacon Street, Waban, in the style of about the year 1700.

FREDERICK H. HUNTER, Secretary, Box 11, West Roxbury, Mass. BURTON G. PHILBRICK, Assistant Secretary, 276 Stuart St., Boston, Mass.

On October 2 the Boston section of the Class held its first informal dinner of the fall season at the Copley Square Hotel. Those present were Jackson, Scholtes, Jewett, Atwood, George Greene, Haddock, Gleason, and Aldrich. Broiled live lobster was unquestionably the favorite choice, but the lack of musty was conspicuous and much bemoaned.

It appears from conversation with those present that we are turning from engineering to agriculture. At least there is a "back to the soil" (not toil) movement under way. George Greene has bought a ten acre farm up in Ashland, with a historic house on it, apple orchard and all the "fixins," and has been living there with his family the greater part of the summer. There is no evidence offered that he did any work, and we are left to assume that he looked in at the factory occasionally as the output of condensed suds at Cambridge seems to have continued undiminished.

Ichabod Atwood has a farm down at Topsfield, where he spent the summer and early fall. It is true that he appeared at the dinner minus any hayseed in his hair, but someone suggested it might be due to sparseness of the latter rather than lack of contact with the former. Natural scepticism prevents the writer from believing that Ic has

indulged in agricultural labor.

Ike Haddock seems to have been showered with honors although we had to go to the Fall River Press to get the following facts, his interest being completely submerged in the next fishing trip, not to mention previous ones. It is really marvellous how some of these fellows find time to hold down a job. The article reads as follows:

"Isaac T. Haddock, son of Mrs. George L. Church of Tiverton, where he was a former resident, recently completed 20 years of service with the Cambridge Gas Light Company, of which he is now superintendent. In honor of the occasion and as a token of their esteem and appreciation, the assistants and foremen, on Thursday evening of last week, held a surprise party, at which they presented him with a white gold Howard watch, with chain, Masonic charm and penknife attached. The watch bore the inscription: '1904-1924. Presented to Isaac T. Haddock with best wishes from his assistants and foremen at the works of the Cambridge Gas Light Company, Oct. 23, 1924.'

"Mr. Haddock was completely surprised, the entire affair having been arranged without his knowledge. Comfortably settled for the evening, he was summoned from his home by a telephone call which told him that there was trouble with the gas pressure and he was wanted at the works at once. Upon his arrival he was hurried through the

office to the shop. where he found the men congregated."

K. D. Jewett has changed from his research work and, with a partner, formed the Boston Building Supply Company, 27 Haymarket

Square, Boston.

Here is a news item from Indiana about our old friend Potter: "The degree of doctor of engineering, the first of its kind to be conferred by Kansas State Agricultural College, will be conferred upon Prof. A. A. Potter, Dean of the School of Engineering and Director of the Engineering Experiment Station at Purdue University, Lafayette, Ind., ac-

cording to action taken by the faculty committee at the college. The degree will be conferred at commencement time. Professor Potter was connected with K. S. A. C., first as Assistant Professor of Mechanical Engineering, and as Professor of Steam and Gas Engineering. From 1913 to 1920 he was Dean of the Division of Engineering at the college. He was succeeded by Dean R. A. Seaton, who holds that position now.

now.
"Dean Potter was graduated from the Massachusetts Institute of Technology and took graduate work at Columbia University. For several years he worked for the General Electric Company at Schenectady, N. Y., and Lynn, Mass., in connection with steam turbine con-

struction and design. He came to the college from there.

"He is the author of a number of widely used text books on steam and gas engines, and has contributed many articles to the technical press. He has presented many papers to and held important offices in the National Engineering Society. At the present time he is President of the Society for the Promotion of Engineering Education. He was President of the Kansas Engineering Society in 1919-1920, and was President of the Indiana Engineering Society in 1922. Professor Potter was Secretary of the Land Grant College Engineering Association from 1914 to 1919. During the War he served as district educational director of the War Department committee on educational and special training for the states of Missiouri, Kansas, Colorado, Nebraska, Wyoming, North Dakota, South Dakota, Iowa, and Minnesota.

"Born in Russia and coming here as a poor immigrant boy, Professor Potter worked his way through the Institute. He received his elementary training in Russia. Professor Potter is now ranked high

in engineering educational circles."

H. S. Morse of Akron, Ohio, will succeed Carleton E. Davis as manager of the Indianapolis Water Company on June 1, according to an announcement Monday by C. H. Geist, of Philadelphia, President of the Water Company. Mr. Morse, according to the announcement, has had considerable experience in utility development and is expected, Mr. Geist said, to continue the program of improvements and extensions already begun which includes the placing of a new filter plant, said to cost \$1,000,000, some additional pumping capacity, and the placing of about 175,000 feet of new mains. Mr. Morse was graduated in 1903 from the Institute in the Department of Civil Engineering. Since that time he has been engaged in the design, construction, and management of public utilities in Louisville, Cincinnati, Akron, and in the United States Reclamation Service.

R. F. Manahan is resigning from his position of assistant manager of the Mexican mining interests of the American Smelters' Securities Company. With this new freedom he is planning the fulfillment of long cherished desires of study and research. It is understood that no

change is contemplated from his bachelor state.

Albert Magnitzky has his headquarters in Boston at present, and

may be reached at 24 Beaufort Road, Jamaica Plain.

The following item, received from W.H. Whitcomb, will be of interest to members of the Class: "At the joint Hartford-New Haven Outing held at Old Lyme, Conn., on June 30, there were six '03 men present out of a total of 65, H. M. Bacon, E. W. Pelton, and C. P. Waterman came with the Hartford bunch, and R. J. King and W. H. Whitcomb from New Haven. Myron H. Clark, formerly a member of the New Haven Club, joined us on his way back to Andover from a business trip.

"We six made enough noise so that everyone knew that '03 was still alive. R. J. King brought honor to the Class by being the winner of a cross-word puzzle contest. To create an interest in the outing, I, as Secretary of the New Haven Club, drew up a cross-word puzzle, and a free dinner at the outing was offered as a prize for the solution nearest

to the correct one. King sent in the only correct solution.'

From The Canadian Engineer: "S. G. Porter, who was recently promoted to the position of assistant to the general manager of the Department of Natural Resources, Canadian Pacific Railway, with office at Calgary, was born at Kyle, near Austin, Texas. He was educated in a private school of his home country, later entering Baylor University at Waco, Texas, from which institute he received his degrees of B.A. and M.A. Leaving Baylor College, he taught school in Texas for several years, then entered the famous Massachusetts Institute of Technology and graduated in engineering with the degree of S.B. Entering the United States Reclamation Service, this young engineer was engaged in preliminary and location survey work in the states of New Mexico, Colorado, Nebraska, and Wyoming. He was also engaged with the construction of the Interstate Canal between Wyoming and Nebraska, having charge of part of the construction program. Later, he became chief engineer of the Arkansas Valley

Sugar Beet and Irrigation Land Company, at Holly, Colorado. Here he came into close contact with sugar beet culture. In 1913, Mr. Porter came to Canada. He became special inspection engineer for the Dominion Government, rising from that position to that of assistant chief engineer and acting irrigation commissioner. Mr. Porter then became associated with the Department of Natural Resources of the Canadian Pacific Railway, becoming superintendent of operation and maintenance of the southern section of the C.P.R. system in 1918, with headquarters at Lethbridge, Alta., which position he has held until the present, when he was promoted to second administrative officer of the Department of Natural Resources. Mr. Porter is a member of the American Society of Civil Engineers, the Engineering Institute of Canada, and several other professional organizations."

Last June at the Reunion one or two of our members expressed the opinion that your Secretary ought to show more life and produce more class news. Of course, it goes without saying that said members did not and never have furnished any class news within the past several years themselves, which is probably an inconsequential detail because your Secretary ought to be able to reach up and pick his news out of the luminiferous ether. Unfortunately, however, he has no such supernatural powers, but is a busy human being with a business to conduct, and spends such time as he may for the edification of the Class without expectation of reward, except in the life hereafter.

Seriously, though, every 1903 man owes it to the rest of the Class to send in more news. There is always something new, and small personal items are always interesting. Do it now. What has happened to that regional committee — in two years, four replies to correspond-

ence and requests! Don't apologize, come across.

CHESTER S. ALDRICH, Secretary.

10 Beaufort Road, Jamaica Plain, Mass.

GILBERT H. GLEASON, Assistant Secretary,
25 Huntington Ave., Boston, Mass.

The City of Philadelphia has awarded to William G. Houskeeper the John Scott Medal for his contribution to technical progress. The award carries with it a premium of \$1000 and is made from the proceeds of a fund left more than one hundred years ago by John Scott of Edinburgh. Scotland. The achievement for which the medal was

Edinburgh, Scotland. The achievement for which the medal was awarded to Mr. Houskeeper is the development in the Bell Telephone Laboratories, New York, of a practical method for making an airtight joint between copper and glass. Such a seal has been sought since the invention of the electric lamp more than a generation ago, for which an electric current must be carried into the inside of an exhausted glass bulb. Recent developments in high-power radio transmission have required the carrying of even larger currents into vacuum tubes. It has been known for a long time that these two substances when heated and pressed together will adhere much as taffy will stick to a plate, but as copper contracts more rapidly than glass in cooling, the joint invariably broke and allowed air to leak in and destroy the vacuum. Platinum has been used extensively for lead-in wires, but its cost is prohibitive where large amounts must be used. Mr. Houskeeper's invention makes it entirely practicable to use copper instead of platinum, and thus makes the large vacuum tubes commercially possible.

Albert L. Smith was one of the forty-three employees of the General Electric Company to whom Charles A. Coffin Foundation Awards were made this year. The award was made to Mr. Smith for work on incandescent lamps. He is employed in the Engineering Department of the Edison Lamp Works of the General Electric Company at Harrison, N. J., and his home is at New Providence, N. J.

To receive one of these awards is a high honor. They are given on the basis of noteworthy service rendered in the field in which the recipient is engaged. Engineers, commercial men, foremen, shop employees, and members of the administrative branch are all eligible, the basis of awards being not the line of work an employee is following, but the notable service rendered in that particular field.

Herb Wilcox writes: "Resigned from the Winchester Company after our winter in California at their expense. Coming East early in April, I spent two months shopping the market and in June hitched up with the National Aniline and Chemical Company, 40 Rector St., New York. I am without title, without position, but draw a salary and report to the general sales manager. I earn at least a portion of said salary."

Capt. R. D. Gatewood, district director of the Shipping Board

Fleet Corporation, 45 Broadway, New York, has taken over the operating department which had been conducted as a separate office.

— Howard Edmunds is technical advisor to the Cameograph Company, Ltd., 45 Pall Mall, London, S. W. They have a New York office and we hope business will send him over here sometime. — Edward J. Poor is President of the Hygrade Lamp Company of Salem, making incandescent lamps. — In a recently issued statement, W. K. Lewis estimated that the value to be placed upon the oil shale lands of Northern Colorado would approximate a trillion dollars. Whew!

According to a news item in the Christian Science Monitor, "Roswell Davis of Beverly, Mass., formerly superintendent of grounds and buildings at Princeton University, has been appointed business executive at Wesleyan University. On September 16 he will take direct charge of the property and the grounds of the University. His appointment comes as a result of the \$1,250,000 building program. Mr. Davis was graduated from the Massachusetts Institute of Technology in '95." Your Secretary has attempted to find out whether Ros Davis, '05, was the man in question, but, like others in the Class that we could mention, he has failed to answer our letters.

When you think of the telephone, think of Charlesworth and Chesterman and Thomas Shaw and Winfred Taylor. High telephone officials sat recently in the board rooms of the A. T. and T. in New York, and exchanged greetings with Chicago officials over the longest telephone cable in the world, providing an uninterrupted service between the country's two largest cities. Charlesworth was there.

On October 3, the great airplane carrier Lexington took the water at Fore River, Quincy, much to the relief of Henry Keith who had been working on the launching problem for the past two or three years. The Lexington is 888 feet in length, 106 feet beam, with a displacement of 33,000 tons. Her speed is thirty-three knots. It was a big job to get her safely into the water without damage to the ship or river. According to reports, everything went like clockwork.

Again, and all too soon, we must report the death of another member of the class. Arthur Malcolm Dean, chief engineer of the General Chemical Company, died on July 4, from an infection resulting from a slight accident sustained on his sailboat at New Rochelle, about

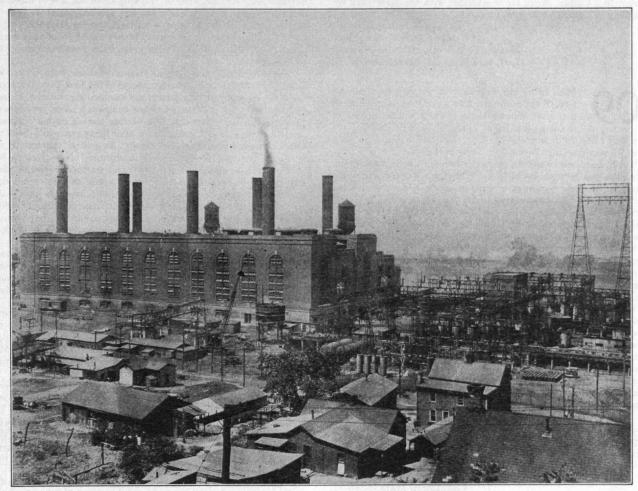
three weeks before.

Mr. Dean was born in Canton, Mass., October 25, 1883. He attended school at Pembroke and Canton, followed by a course in Mechanical Engineering at the Institute from which he was graduated in 1905. From the beginning of his professional career he had been actively identified with the automotive industry and he was responsible for the design of many machines and devices of high order. Upon graduation he went to Hagerstown, Md., as assistant superintendent of the Pope Manufacturing Company. When that branch was discontinued in 1907, he went with the Mora Motor Car Company of Newark, N. Y., as experimental engineer. In 1909 he was appointed chief engineer of the Matheson Automobile Company in Wilkesbarre, Pa., where he remained until 1913. In 1914 he became assistant engineer of the Ferro Machine and Foundry Company, of Cleveland, Ohio. A few years later when the Templar Motor Car Company was organized he was retained as chief engineer, and designed for them one of the finest light cars of its day. His other activities while in Cleveland were with the Rubay Company and the Swan Carburetor Company. In 1924 he became associated with the General Chemical Company, as chief engineer, in which position he was doing splendid work at the time of his death.

In 1909 he married Miss Philena Hinckley, of Hartford, Conn.; she and two sons, Arthur Malcolm, and Dwight, and a daughter, Joan, survive him.

Roswell Davis, Secretary, Wesleyan University, Middletown, Conn. S. T. Strickland, Assistant Secretary, 26 Pemberton Square, Boston, Mass.

In spite of all the efforts of the Secretary, notes are less plentiful than for many months. We have only three brief items. We met Sam Coupal on the street in Boston on October 24, just after he had returned from a trip to the Pacific Coast. He saw L. R. Davis, who is superintendent of the Santa Cruz Portland Cement Company at Davenport, Calif., and found him prosperous and well. — The Secretary met Bob Thayer in Boston early in October. Bob has recently bought a new home on Smith Ave., White Plains, N. Y.—H. J. C. MacDonald



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CHICAGO PITTSBURGH ATLANTA 8AN FRANCISCO LOS ANGELES MONTREAL LIMA, PERU CARTAGENA, COLOMBIA MEXICO CITY LONDON, ENGLAND PARIS, FRANCE LOUVAIN, BELGIUM

BUILDERS OF SUPERSTRUCTURES AS WELL AS SUBSTRUCTURES

writes that his proper mail address is his residence at 842 South Durbin St., Casper, Wyo. He is geologist with the New York Oil Company in Casper.

BRYANT NICHOLS, Secretary, 2 Rowe St., Auburndale, Mass. HAROLD S. WONSON, Assistant Secretary, W. H. McElwain Co., Manchester, N. H.

Most of us are well back in the harness again by now. What may seem like a commonplace job to us may have features about it which will be interesting to some other fellow in the Class. Why not drop the Secretary a line about your work so that, through the medium of class notes, he may pass that information along to the others?

Paul B. Lord, who has been unit superintendent at Santa Barbara, Calif., has now been promoted to manager of the Mexican unit of the American Smelters Securities Company, taking the place of Schumacher, '04, who has been moved to the head office in El Paso.

Professor T. G. Chapman completed his work for a doctor's degree in the Mining Department at Technology in the summer, and with this off his mind, he hastened to Holten, Kan., where, on August 20, he was married to Dorothy, the daughter of Mr. and Mrs. W. B. Spears. After the honeymoon trip, he took his bride to Tucson, Ariz., to resume his duties as Professor of Metallurgy in the University. The cards announce that the bride and groom will be at home after October 1 at Tucson.

Dr. Edwin West Allen, director of the office of Agricultural Experiment Stations of the Department of Agriculture, Washington, and Mrs. Allen, announce the engagement of their daughter, Miss Dorothy Helen Allen to Dr. Franklin Livingston Hunt of Waltham. Dr. Hunt is a physicist at the Bureau of Standards, in Washington. He is a member of the Cosmos Club, and of various scientific societies. Recently he was sent abroad as a representative of the Federal Government in connection with his work.

Joseph White is chairman of the Division of Statistics and Publicity for the Board of Public Works of Allegheny County, Pennsylvania. He is also President of the Pittsburgh chapter of the American Association of Engineers. — Mollie Scharff has been appointed chief engineer of the Philadelphia Company and affiliated corporations. In this position he has charge of the engineering work of the principal public utilities of Pittsburgh.

CHARLES R. MAIN, Secretary, 200 Devonshire St., Boston, Mass. GEORGE A. HAYNES, Assistant Secretary, 186 Lincoln St., Boston, Mass.

Well, here we are again, writing class notes with almost nothing to write about. I have a clipping from the Asbury Park Press about George McRae that is some months old, but I saved it over from last month's notes because there was then a fair grist of material accumulated during the summer and I feared a dearth at this time. My fears were justified as not a single letter or clipping has found its way to your Secretary during the past month.

What your Secretary would like to know is this: do you care anything at all about the class notes? The more letters are appealed for

the less they come in. If the notes are entirely neglected for a few months classmates will write in, crabbing about the lack of them, but the more your Secretary works the less encouragement he gets. If, say, one-half of the Class wrote in once in every five years there would be half a dozen letters for each issue. Is that too tough an assignment? Come on, let's have one letter every five years from everyone — beginning now.

Here is the article about our illustrious classmate from Course VI: "George W. McRae, new general manager of the New York Telephone Company in northern New Jersey, has assumed the duties of his new position in his office in the telephone company's New Jersey head-quarters building in Newark. Mr. McRae started on his telephone career fifteen years ago, immediately after being graduated from the Massachusetts Institute of Technology. As general manager of the telephone company's organization in northern New Jersey, Mr. McRae will have entire jurisdiction over all traffic, commercial, plant and engineering matters in a territory which contains more than 395,000 telephones, operated and maintained by more than 8,000 telephone workers. The change in the telephone organization which brings Mr. McRae to Newark is being made to care for the enormous growth of the system in all parts of the territory served by the New York Telephone Company."

Dudley Clapp, Secretary, 15 Draper Ave., Arlington, Mass. R. O. Fernandez, Assistant Secretary, 264 W. Emerson St., Melrose, Mass.

Of course you all remember the dates of the forth-coming party. What party, you say? Why, the Fifteenth Anniversary Reunion of the Class of 1911 scheduled for the 1926 Memorial Day week — May 28, 29, 30, and 31, 1926. We have not definitely decided on the place yet but we'll have it ready for appropriate before long.

yet, but we'll have it ready for announcement before long.
Your humble scribe wishes to apologize for having been so dumb as to schedule a class dinner for the evening of October 28, two days after the closing date for material for the December issue of The Review. Darn it all, I could just as well have scheduled it the week previous, but I didn't, and now you can't have a description of it in this Review. Of course the main topic of discussion will be the Reunion and it is hoped that a working committee can be formed either then or very shortly thereafter. We'll let you know about it.

Replies, by the way, have been coming in nicely for the late October class dinner and it looks like a sizable party. Lots of the boys who cannot attend the dinner are accompanying their dues checks with Reunion suggestions, and a lot of them seem to favor a place between Boston and New York on the Sound. Harry Tisdale of Schenectady is strong for Castle Inn at Comfield Point near Saybrook, Conn. You boys at a distance should let us know what you think about this.

Score another hit for Dan Cupid! Mr. and Mrs. Jacob P. Wilhelm of Baltimore, Md., announce the marriage of their daughter Eleanor Mary to Ralph Edward Vining. Hearty congratulations, Ralph!

It is certainly fine to be able to announce that good old Tommie Haines, II, has recently been promoted to superintendent of the maintenance of lines department of the Edison Illuminating Company of Boston. This is a well-deserved advance for Tom and we're all happy.—Doc Davis, Jr., VI, sent in his check for class dues from 333 Brix Building, Fresno, Calif., but didn't say what he was doing there.

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consumption can infect a whole community.

There is only one sure escape. That is to stamp out the dread disease entirely. It can be done. The organized work carried on by the tuberculosis crusade has

cut the tuberculosis death rate in half.

You can help in this great work. You can protect your life, and the lives of your family and friends. Buy Christmas Seals. The sale of Christmas Seals provides the

funds to wage this increasingly successful war upon tuberculosis. Let your every Christmas parcel, letter, and greeting card carry these cheery little messengers of health to all the world, Christmas Seals.



tamp Out Tuberculosi. with this Christmas Seal

THE NATIONAL, STATE, AND LOCAL TUBERCULOSIS ASSOCIATIONS
OF THE UNITED STATES

We last knew of him as a Major in the Ordnance Department, stationed with the 90th Division at Fort Sam Houston, Texas.

Maybe I wasn't delighted to see Frank Osborne, III, breeze into my office on October 22! Frank is in the States for a short while, but is traveling around a great deal prior to returning to Chuquicamata, Chile, S. A., with the Chile Exploration Company. He looks fine and dandy and is a lot heavier than he was in school, although he had put on quite a bit during the first six or seven years out of Tech. He hopes to see several classmates here and there in his trip to various sections of the country this fall.

Well, mates, that's all for now, but don't forget those dates: the

last four days of May, 1926!

ORVILLE B. DENISON, Secretary, Room 3-207, M. I. T., Cambridge A, Mass. JOHN A. HERLIHY, Assistant Secretary, 588 Riverside Ave., Medford, Mass.

Not a word has been heard from any of the Class since last going to press, so there is absolutely nothing to say. Worse than this, your Secretary finds that he was erroneously informed as to R. W. Chandler's whereabouts, and wishes to retract that portion of last month's notes. R. W. is with The Philadelphia Company, located in Pittsburgh.

Your Secretary, being of an optimistic nature, hopes that something in the way of notes will drift in within the next thirty days. About 100 letters are going out this month to various men in the Class. Another 100 will go out next month, and so on until the Class is covered. If you are among the first drawing please take the time to reply.

Frederick J. Shepard, Jr., Secretary, 125 Walnut St., Watertown, Mass. D. J. McGrath, Assistant Secretary, 2226 Loring Place, New York City.

Abe Martin says, "'Pears like the only way to get any letters from the Class is to have an election for Secretary every month." Possibly the fact that the results of the last election have not yet been broadcast deters many writers from forwarding their long tales. By the

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Boston, Mass.

time this comes to the surface you will all have learned the sad news and from now on I expect that the Post Office department will be obliged to increase its force and particularly the postman who has 99

State St., Boston, on his calling list.

Is there a man alive today who was present at our senior banquet who does not remember the epoch-making speech of one Raymond E. Palmer? A worthy son of the Class who had toiled four years without murmur, complaint or praise (and who, so far as I know, has toiled for some twelve years more without breaking silence) rose grandly to the occasion and to the seat of an unsteady chair, whereon he was steadied by ye scribe, and there and then delivered The Speech of 1913! It was one of those spontaneous gems that only happen once in a lifetime. The circumstances, surroundings and conditions never seem to come again so fittingly into tune. Well, Ray is Vice-President of the Palmer Steel Company, Inc., of Springfield, Mass. He is also the chief engineer of the concern and has been closely associated with the installation of steel in the Rhode Island School of Design, the Hartford Times Building at Hartford, the new Methodist Church in Melrose, Mass., and the new Nelson Hotel at Poughkeepsie, N. Y. If Ray mounts the chair and sells his firm's services and supplies as he sold us the good old Class spirit at the senior celebration, there would seem to be no limit to the business in store for the Palmer Company.

P. V. Faragher, who took a Ph.D. with our Class, is connected with the Aluminum Company of America. Last spring he collaborated with R. I. Streeter in the preparation of a paper that appeared in Mechanical Engineering and treated of "Aluminum and its Light Alloys." After leaving the 'Stute Faragher returned to the University of Kansas, where he had received his A.B. in 1909, and held successively the positions of assistant professor and associate professor of chemistry. In 1918 he held a fellowship at the Mellon Institute from

which he went to the Aluminum Company.

After Allen F. Brewer graduated from Course III he entered the service of the New Jersey State Board of Public Utility Commissioners, being engaged in the inspection and valuation of power plants and public utility properties. In 1917 he went with the American International Shipbuilding Corporation and from there into the Naval Reserve as Chief Machinist's Mate, later receiving the rank of Ensign from the Navy Steam Engineering School at Stevens. He saw service during the war on the U. S. S. Edward L. Dobeny, 3rd, as Junior Watch Officer. Al has made a specialty of combustion of oil fuels and lubrication, covering in particular the scientific selection and application of lubricants. He has also dealt considerably with valuation and general plant efficiency. Since the war he has been with the Texas Company at Port Arthur, Texas, and also with their Northern Territory Sales Department.

The Advisory Council on Athletics has asked our Class for a subscription of \$50 to the Alumni Athletic Fund. This money is needed in order that it may be possible for every man now at the Institute to take some form of physical exercise, and in order that our teams may be properly financed. Money can be sent direct to the Alumni Athletic Fund or to the Class Secretary. Dig, boys, and help the good work

Twink Starr, I, is with the Ferro Concrete Construction Company, and is located at Rochester, N. Y. - Clint Pearce, II, Professor of Machine Design at Kansas State Agricultural College, writes: "Since coming to Kansas eight years ago, I have not been able to keep in touch with many of the boys and am, therefore, seizing this opportunity to say 'hello' and to suggest that I would be glad to hear from you and any of them that are still living." Clint, you're mighty soon going to have a real chance to get in touch with some of the boys, be-

> Coburn, Kittredge & Co. **Investments**

68 Devonshire St.

Boston, Mass.

cause the Secretary is going to ask you to take upon yourself the responsibility of writing to certain men and seeing that at least one letter is received from one of them for each issue of the notes.

The plan is to ask a man in a particular region to act as the representative of the Secretary in that section. If each man so chosen sends just one letter each month our notes will flourish. This secretary business is no one-man concern, but if a dozen or fifteen men put their shoulders to the wheel and push like the old tug-of-war team pulled, we shall be able to turn out a real letter every time The Review is published. Probably by the time these notes are read, the men will have been picked and they in turn will have written to their group. It is up to each class member to respond and keep things on the move.

One more item. Our Class stands 37th on the list of all classes in respect to the percentage of the class members who have paid their Alumni dues. Our class total is 527 and only 118 of that number have paid their Alumni dues for this year. Nineteen-twelve is ahead of us! Ante, boys, in order that we may raise our percentage and standing in

the list.

Our genial Class President has changed from the statistical organization of Babson at Wellesley Hills to the Babson Institute and will teach the advanced work of the Institute.

HARRY D. PECK, Secretary, 99 State St., Boston, Mass.

'14

True to form! This issue is the hardest of all issues of the year to write copy for. At the time of this writing the November issue has not yet reached you so that you are still waiting for the Secretary's fall greeting, that not a single general letter has come in during the

with the result that not a single general letter has come in during the past month.

There are, however, two glad events to write about. The first is the marriage of Jimmy Judge to Miss Doyle of Holyoke, Mass. Jim is on an auto trip through Canada but promises to send in further details in time for the next issue.

The second item was clipped from a recent Albany paper. "McFarlin-Hollenbeck. Mr. and Mrs. Everett Hollenbeck of 22 Curtis Place, Maplewood, have announced the engagement of their daughter, Miss Adelaide Sutherland Hollenbeck, and Kirk McFarlin, son of Mrs. William K. McFarlin of 52 Clinton Avenue, Maplewood. Miss

Hollenbeck is a graduate of Wellesley College. Mr. McFarlin was graduated from Williams College and Massachusetts Institute of Technology. He served overseas in the naval flying corps during the war. The wedding will take place in the spring."

Those who remember Penn, III, who was with us during our last year at the Institute will be interested in the following note: "Nicholas Penn is still at the University of Tomsk in Siberia. Conditions have materially improved so that he was able to afford a little country cottage for the summer about six miles from the city. The change proved very beneficial for Mrs. Penn and the children. He expects that with continued improvement he will be able to start shortly on the equipment of his ore dressing laboratory in the University. The start will be in a small way with only the most important machines, but as more money becomes available the laboratory will be expanded as fast as possible."

Several items regarding Pat Adams have as usual appeared in various newspapers. From them it would appear as if Pat had been spending much of his time of late in Washington in connection with the various aëronautical hearings. His recent activities also included a

speech at the Charlestown Navy Yard on Navy Day.

Please remember that your Secretary has a self-imposed double duty of supplying class notes for eight issues instead of the required four. Please help out by writing him a letter during the next month telling of your present work and any interesting events regarding other Fourteeners you may have heard of recently.

H. B. RICHMOND, Secretary, 100 Gray Street, Arlington, Mass. G. K. Perley, Assistant Secretary, 45 Hill Side Terrace, Belmont, Mass.

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Frank P. Scully, Secretary, at 118 First Street, East Cambridge, Mass., or to Howard C. Thomas, Assistant Secretary, 100 Floral Street, Newton Highlands, Mass.

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If all the promises of letters for these notes were promptly and faithfully kept there would be plenty of interesting reading here each month. Ad. lib. Stockman, for example, quite without solicitation, agreed to write a letter that would say all the things neither of us had time to discuss at the Chemical Exposition in New York. His letter

may have been lost in the mail.

There were others of the Class seen at the Exposition, including John Parsons, who has completed his work with Professor Hibbard of Yale and is soon to help erect an experimental paper mill for Hammerhill. — Dick Loengard was in charge of a booth displaying the new chromium plating for the Metal and Thermit Company. — Mac McGrady came up from his new office in Philadelphia to look over artificial silk and other possible markets for cotton linters. — Adams of Haverstraw, Dean Parker, Ken Bell, John Holton, and W. I. McNeil were on hand for short times. McNeil is in charge of accounting for Proctor and Gamble's Staten Island plant. — Ray Brooks got as far as the door, but his new advertising work in New York will not permit of his spending even a few minutes sight-seeing. — T. K. Melloy came to view his Translux screens in action.

Among the seven newly appointed members of the Yale Faculty, we are glad to note Barnett Fred Dodge, D.Sc., Assistant Professor of Chemical Engineering. — Henry F. Goldsmith was married to Miss Ida Phyllis Strykes in Philadelphia, August 14. — J. R. Ramsey is now with the J. G. White Magnet Corporation in New York City. — Mr. and Mrs. Irving W. Young, Jr., announce the arrival of Marjory Marsh Young on September 28.

Bert Canby, one of the most popular boys in the Class, died at Denver on March 11, and was buried at his home city, Dayton, Ohio. He had been ill several months. Canby will be remembered as active in crew and other undergraduate affairs. Since graduation he has been connected with du Pont's. He is survived by his wife and two daughters.

We must also record the death of Mrs. Alvah E. Moody, at Denver, early this year, after an illness of a year and a half. Piso has three children, and a letter to Dr. Dewey this summer said that they were in

good health.

The summer grist of news has been smaller than usual, perhaps due to a Babsonian reaction from the Reunion. Fortunately, The Review Editors have given advance notice that The Review is to be so interesting as to make the notes almost superfluous. We do note, however, that I. B. McDaniel, after the Navy manoeuvers off Hawaii, left for Australia on the airplane carrier Langley.

Ralph Henry Sawyer was married at Chewkee, Ala., on July 2, to Miss Elizabeth Nichols. He is still living in Framingham. — Irving C. Eaton married Miss Doris M. Moody at Waldoboro, Maine, last May. Eaton is now assistant superintendent of the Phillipsdale, R. I., plant

of Bird and Son. — Roy Haggard has been made principal of the Stoughton High School.

Has any one a group photograph of the Class that can be obtained for Mr. Munroe's historical collection in Walker?

Neal Tourtellotte made the trip home from the Reunion (Philadelphia to Seattle) by Packard. He says, "We made the trip home in twelve days, but only nine-and-a-half days were spent on the road. We made several stops. We made an average speed of 337 miles a day. No accidents, but I did break a couple of springs when I hit a hidden chuck hole." We understand that Neal and Don Bradley have landed a \$350,000 contract for the ornamental bronze work on the new Washington State Capitol Building.

A letter from C. E. Plummer on the letterhead of McClellan and Junkersfeld says in part, "For the past two years I have been with the above firm as cost engineer. If there are any members of the Class in this vicinity whom you know, that belong to the Technology Club in New York City, I would be glad to have their addresses as I would like to obtain some information regarding the Club and its activities from

some one who is already a member."

T. D. Lebby writes, "My path has been far separated from those of the various men I used to know in the 1917 Class and, as a matter of fact, I have not even seen one in the last two years. I would enjoy hearing the present whereabouts of Brick Dunham, Farr, Clarkson, Barry, Mehaffey, and Eddy. As for myself, I am at present engaged in the design and construction of reinforced concrete structures, principally arch bridges, I am sorry that my geographic location does not permit me to take in such celebrations as you are having, but hope that it will not be many more years before I will have the chance to visit the old haunts."

RAYMOND S. STEVENS, Secretary, 30 Charles River Road, Cambridge, Mass.

No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the Class having news or inquiries should address them to Percy W. Carr, Secretary, at 400 Charles River Rd., Cambridge, Mass.

A gathering of the clan is certainly in order so that we may round up some interesting gossip for your further enlightenment. As the notes go to press, we are planning an informal dinner at Louis' with a show afterwards, sometime around the middle of November. You shall hear more of that anon.

For your present interest and to keep up your spirits, I am pleased to inform you that Schwartz, VI, is the proud father of a baby girl born October 12. He is with the American Tel. and Tel. in New York.

Stanton Breed is back in the Boston office of Stone and Webster after spending the past few years in Columbia, Ga. — Rumors have reached us of the marriage in June of Henry Whiton, who is also with Stone and Webster at Beaumont, Texas, but to date we have received no official information. — A telephone call recently announced the



arrival of a son, John Ayer Maynard, born October 20 to Mr. and Mrs. Warren Maynard of Winchester, Mass. Our heartiest congratulations!

T. E. Shea, VI, is with the Bell Telephone Laboratories of New York engaged in apparatus development work. In addition to his regular duties, Shea is instructor in theory and practice of transmission networks in the out-of-hour educational courses which the company provides for its employees during the winter months. Shea has been with the Laboratories, formerly the Engineering Department of the Western Electric Company, since 1920.

The fact that Nineteeners are busy in other parts of the world is also shown by the following interesting extract from the North China Star of Peking. It is quoted from the Bulletin of the Chinese Government Economic Bureau: "Industrial undertakings in China for the last few years felt the need of a modern machine shop in this country which could make heavy machine parts and castings of a quality equal to that of imported machinery. Now the want has been supplied by the Chee Hsin Engineering Works at Tangshan, on the Peking-Mukden Railway. The works has been erected by the Chee Hsin Cement Company, for the purpose of undertaking the manufacture of such machinery and machine parts as can be made more economically in this country for local industries. The machinery equipment of the works will be especially adapted for the manufacture of cement and other special machineries and their accessories. A sales office will soon be opened in Tientsin. The works is under direct charge of Mr. K. P. Hu, a graduate of the Massachusetts Institute of Technology. All sub-departments are managed by trained engineers." More power to Hu! We would like to hear from him personally and from others in distant parts who must surely be engaged in interesting things.

Paul F. Swasey, Secretary, Box 1486, Boston, Mass.

In the letter I sent you not long ago I promised to evolve some startling statistics and sure enough the figure in the following statement is startling enough even if it isn't the kind of a "statistic" that I had hoped to be able to present.

Here it is! Less than 2 per cent of the Class has come across with a reply, to date!

If you're one of the 98 per cent that haven't yet written me, how about it?

One answer came in by return mail and I said to myself, "Ah, here's one good, loyal '20 man. He's got the right spirit." But, lo and behold, it started off like this: "In reply to yours, I am writing to find out if that bathing suit you borrowed at Reunion last June is dry enough now to send through the mail without infringement of the Volstead Act. It is against the law to bathe in the nude in Rhode Island and I would hate to be arrested and have the bare facts brought out in court." Signed, Ev Freeman.

To tell the truth, Ev, when I went up to my room at the Mayflower to get that suit it was filled with maudlin Harvard roysterers. (The room, not the suit.) You will remember that gang in green and white jockey outfits who came just as we were leaving. Their unseemly behaviour and boisterous urgings to participate in their revelings so upset me that I clean forgot that bathing suit, so it's probably still in that room and should be bone dry by a year from next June when we may be there again. If you can't stay out of the water till then the only thing I can see for you to do is to send me a bill for same and then try and collect.

Irving Brown wants to hear a bit of news about the '20 bunch so he has followed the Golden Rule as I suggested. He is located at Covington, Ky., and is in charge of both the Covington Mill and the Cincinnati Mill of the Hooven and Allison Company, cordage manufacturers. Brown is still a bachelor although he didn't offer any valid excuse for this.

I had a nice letter from Charles J. Lawson, who is now manager of the St. Louis office of the International Time Recording Company. He has two sons, one five and the other three years old, already exhibiting promise as future Institute material. He says he hears from Dave Fiske occasionally. Dave is teaching at the University of Illinois.

Jack Logan writes interestingly from Harrisburg, Pa., where he is installing automatic train controls along the Pennsylvania Railroad lines from there to Baltimore. He says it's great fun putting a device on trains that keeps stopping them all the time when everybody else on the railroad wants to keep the trains moving. Jack says he will gladly make use of his pass to visit classmates on week-ends and thus save paying for his own meals. Anyone wishing to take him up on this generous offer should write to his home address at Bala, Pa.



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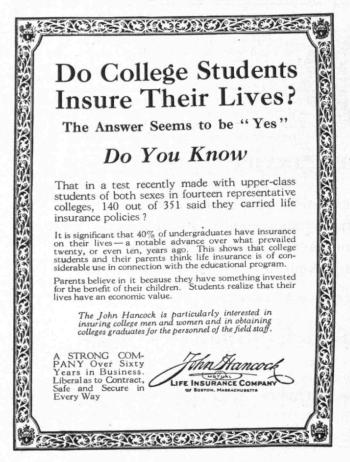
I have some interesting news of T. R. Taber, now Assistant Professor of Military Science and Tactics at Lehigh University. When Taber got back from two and a half years' service as a cavalry officer in France and Germany during and after the war he transferred to the Ordnance Department and is now establishing an Ordnance Unit in the R. O. T. C. at Lehigh. He was married in June, 1922, to Miss Theresa Woodward of Lowell, a Wellesley girl, and now has a two and a half year old daughter.

J. P. Morgan wrote me a nice letter from Beaumont, Texas, where he is still working for the Eastern Texas Electric Company, Stone and Webster managed. He expects to be transferred to Port Arthur shortly to take charge of the company's property there. J. P. has the following to say which may be of interest to men of Course VI or others interested in public utilities: "From all indications, this entire section of the United States is moving at about as fast a speed as possible from a building and new business standpoint. This company at present is at work on the installation of a new 22,000 k. v. a. unit located on the Neches River at an approximate expenditure of \$4,000,000, and from present prospects, this will be only the first of several units, as the oil field loads and other industries throughout this section of Texas and Louisiana are fast becoming electrified."

Heinie Haskell can be reached at 64 Marbury Ave., Oak Hill, Pawtucket, R. I. He is with the Lorraine Mills and if I know Heinie he's making things hum there. He has a daughter a little over a year old. Heinie says he saw Hank Caldwell this summer. Hank is running an exhibit at the Chemical Show for the Swenson Evaporator Company, New York City. — Roger McNear is with the Boston Office of the Cleveland Folding Machine Company, 813 Chamber of Commerce Building. He has a son three years old. — Malcolm B. Lees was one of the principals in an all-Technology wedding on September 27. His bride was formerly Miss Cornelia Nelson, '21. Malcolm is now working in Boston and is connected with one of the large investment houses, I believe.

If you've enjoyed looking over these few brief notes just think how much more you'd enjoy it if, after reading this, every one of the bunch sat down and wrote me an item for the next number of The Review. If you do it I'll bet a lot of the others will, too. What do you say? Will you help me out?

HAROLD BUGBEE, Secretary, 9 Chandler Road, West Medford, Mass.



While the fall crop of notes could be much more plentiful, there are a number of weddings, engagements and other events, which will be of interest to many.

On September 3 at Chariton, Iowa, Miss Mildred Larimer and George T. Welch, XV, were married. — Earlier in the summer, on June 27, Miss Claude Saugrain von Phul and William Thompson Smith, X-A, were married in New York City. — Last July in the garden of Mrs. Flora H. Fuller, mother of Governor Alvin T. Fuller of Massachusetts, Mrs. Margaret Houk Moody of Los Angeles, Calif., and Lieutenant-Commander Alfred Henry Balsley, U. S. N., were married. Kendall Preston, XIII, was best man. Balsley graduated from the Naval Academy in 1914 and completed special graduate work at the Institute. — On September 21 the announcement was made of the engagement of Miss Margaret Hanson and George B. Wetherbee, II, of Bath, Maine.

B. Wetherbee, II, of Bath, Maine.

The following welcome letter has been received from Wallace T. Adams who is living in Robinson, Ill.: "If only to keep from being classified as dead, I should write you, but I certainly appreciate how difficult a job it is for you to keep the '21 section of The Review filled up when you have a list of names that look as blank as mine must. Down in these sticks I seldom see or hear directly from any of the '21 gang. I have several times run onto Lewis Moss, XV, who is with the Big Four in Mount Camel. Lewis found the lady there and has an heir who must be several months past his first birthday by this time. The last word I had of Lewis, he had been trying the experience of letting an auto turn over on him but luckily with no serious results.

"While in Chicago in January I saw George Pollock, XV, endeavoring to sell a few more Smith Concrete Mixers. Ed Noyes, III, was also at the road show selling equipment for the Sullivan Machinery Company. Same old Ed!

"As for myself, I am still with the Division of Highways for the State of Illinois, replacing a few mud roads with concrete. I was married in June, 1923, to Anne Jenkins, of Rocky Mount, N. C. Of late our time has been well occupied by Richard Wallace, who has attained the age of six months."

Edward I. Mandell and Ben Cohen have started a new engineering firm with offices at 160 E. Flagler St., Miami, Fla. Before starting on his own, Mandell was in the engineering department of Carl Fisher, located at Miami. Good luck and prosperity.

In June of this year at a fashionable morning wedding at the Sacred Heart Church at Fall River, Mass., Miss Louisa Swords and Henry F. Shea were married. — Another June wedding was that of Miss Evelyn Page to Harold N. Ewertz, XIII. The wedding, which was held the latter part of June at Melrose, Mass., was followed by a motor trip, winding up at the Hotel Riviera, Newark, N. J. Ewertz is a sales engineer with the Electric Arc Cutting and Welding Company, 152 Jelliff Ave., Newark, N. J.

In May, Miss Mildred M. Close and John C. Mahoney were married in Portland, Maine. Mahoney is a chemical engineer at the Merrimac Chemical Company in Woburn, Mass.—On September 26 our Corrine was married: "At the First Parish Church in Cambridge, Mass., Miss Esther Marie Cornelia Nelson, IV, and Malcolm Bruce Lees, XV, '20, were united in marriage." We all extend greetings and wish you happiness.—From Holderness, N. H., came word that Miss Helen Gordon Spurr and Scripps Booth, IX-B, are engaged. An early wedding is planned. Scripps is assistant sales manager, Cities Service Refining Company in Boston.

Richard W. Smith, '21, has resigned his position on the Tennessee Geological Survey and gone to Cornell University at Ithaca, to work for a master's degree in geology there under Dr. Ries, taking economic geology as his major subject and petrography as his minor subject. He was fortunate enough to secure a part time assistantship at Ithaca. His detailed report for the Tennessee Geological Survey on the phosphate deposits of Tennessee was not quite completed when heresigned, but will be completed by him during his residence at Cornell and will contain results of additional petrographic work at Ithaca on phosphates and phosphatic limestones which it is hoped may throw some light on the origin of phosphate.

This year the Province of Alberta has published an Industrial Research Report, "Geology of the Foothills Belt" between McLeod and Athabaska Rivers, Alberta, by Ralph L. Rutherford, XII.

In August Miss Stella E. Merrill and Henry M. Lane, VI, were married. Henry has been technical editor and radio king of the Boston Post. Mrs. Lane graduated from Radcliffe in 1921 and more recently has taken graduate work in chemistry at the Institute. Art Skilling, I, after three years' service, left the U. S. Coast and

Geodetic Survey, during which time he was a junior hydrographic and geodetic engineer, spending considerable time in Alaska. Art is now in Pittsburgh with the Morris Knowles people. — Miss Mary W. Fraser and C. C. Carven, IV, have announced their engagement.

Early in the summer the following clipping of interest was taken from the Lawrence (Mass.) Telegram: "Harold W. Stiegler, [Ph.D., V,] of 535 Howard Street, who a few days ago was given a reserve appointment subject to call as a captain in the Chemical Warfare Service, expects during the approaching summer to resume work with Dr. Lee Lewis in Chicago on Lewisite, the sensational discovery of Dr. Lewis in his researches in Washington during the war. For three years previous to last fall he worked independently of the government with Dr. Lewis in Chicago on Lewisite and has discovered a number of toxic gases during that time. It is on these, and other gases which may subsequently be discovered, that he will work this summer.

"Since last fall Dr. Stiegler has had charge of the newly organized research laboratories at the Lowell Textile School and during that time has invented and patented several new synthetic dyes. His textile chemical researches have proved of benefit in many ways to the in-

dustry.

"Dr. Stiegler is a graduate of Lawrence High School with the class of 1913 and of the Lowell Textile School. He has several degrees through post-graduate work at the Institute and at Northwestern

University, Chicago."

Stuart Nixon, XV, is with the Continental Motors at Muskegon, Mich., and is among the few to be still unmarried, according to the character of the notes in this issue. — Miles Zoller, XV, is handling the tough ones for the sales department of the Eagle Picher Lead Company, and has headquarters in Chicago. Miles said that he saw Herm Schmidt in Chicago recently. Herm is assistant merchandise manager for the big department store, Lord and Taylor, in New York.

Sol Silverstein, X, and Joe Lurie, X, are both with Bigelow, Kent, Willard, industrial engineers in Boston. Sol is doing engineering work and selling, and Joe runs the chemical laboratory. Sol says that Rosy Rosenfield is making some real progress and money as manager of the National Laundry in Dorchester, Mass. — Fred Binns is chemical and sales engineer for the Virginia Smelting Company, 131 State St., Boston. A second arrival has come to the Binns, but

whether it is a girl or a boy, we have not heard. — Bob Felsenthal is in executive sales work with S. W. Straus and Company, in Chicago, "No losses in 43 years."

R. A. St. Laurent, Secretary, 431 Oliver St., Whiting, Ind. CAROLE A. CLARKE, Assistant Secretary, 120 Shearer St., Montreal, Que.

The Course Secretaries have revived slightly. Four brethren are represented below, which greatly encourages us, in that it constitutes a reply to the appeal in the November issue. The appeal was so appallingly appealing it may be stated, that the response to it began before the printed words had actually reached any one. There must have been

a news leak somewhere, but we are scarcely disgruntled at the results. It is particularly pleasing to note that George Holderness has wrapped himself about in the customary Promethean fire, and given off sparks for several columns. The return to these pages of the Marvel of Metonymy after a periodic silence is always a matter for rejoicing. Glance but slightly further south, and note the Grammercy Glissendo in full blast. . . . But let us, for the moment, pass on to other cages.

By all odds the most important announcement of the month relates to an augmentation to class personnel. We wish to announce that the Class of 1922, always a pioneer in the alumni field, is now the possesser of a new officer - a Traveling Secretary. The specifications of this office were drawn on a generous scale to fit the capabilities of Mr. Henry John Horn, Jr., who is already busy in his new activities, and will begin upon a series of monthly Field Reports starting with the January, 1926, issue. Heine is keen to meet with old friends at the new stand, and as soon as he gets under way we are planning to add another eight-page form to the magazine to accommodate him. As was carefully recorded in the November issue, Heine's work now takes him hither and yon (particularly yon) about the country, and in the course of his circumnavigations of the globe, he is going to note for the benefit of all the activities of the multitudes of '22 chaps whose lights have hitherto been concealed under bushels. Heine is going to remove the bushels, and junk the old lights, standardizing on 500 watt argonfilled type C incandescent lamps, guaranteed to cast a beam to every

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corner of the ether. When we think what, in all seriousness, Heine's efforts are going to mean to the rest of the Class, we have difficulty in talking like anything else than a Buick ad, so perhaps we had better close down, and let the results which are to begin next month speak for themselves. Someone of Heine's e.m.f. has long been needed in the organization, and this eventuality is pretty nearly Heaven-sent. Heaven has been a little slow, but we cannot quarrel with the endresults.

We have no long letters to quote this month, and few short ones. From the strictly journalistic point of view the best news item of the month relates to the gifted minnesinger of combustion, Robert Price Russell, X, who has just been elevated to the seats of the mighty in thoroughly appropriate fashion. Young Bob has been with the Research Laboratory of Applied Chemistry ever since his graduation, and one by one the insoluble problems of chemical engineering have ionized themselves into nothingness before his attack. First, Bob was assigned to corrosion problems, and kept faithfully at them until the country's supply of pig-iron began to run dangerously low. Then he left that field for a study of fuels and combustion, and soon embarked on the genuinely heroic labor of writing a book about them with Professor Haslam. McGraw-Hill is to publish it at some time in the future exact date at the moment the subject of a bitter dispute between the co-author, and the gensec, each of whom is willing to wager his bivvy dizz against the contention of the other. But the latest news of Young Bob is the best. The resignation of Walter Whitman, '17, as Assistant Director of the Laboratory, to go with Standard Oil of Indiana, brings about Bob's rise to the post. We are deeply glad - even though he does not pay his alumni dues, preferring to read the community copy of The Review thoughtfully provided by Professor Lewis. For some time, Bob has been our candidate for the one of the Class first to receive academic honor at the Institute, and lo, it is so. It happens that the now Famous Man was the first acquaintance of the Secretary when the Secretary first came, a homeless orphan, to the Institute in 1919. He drew a seat beside the Man of Destiny in Professor Vogel's section of L33, which was concerned, you may remember, with "Die Chemie im Täglichen Leben," and a devil of a Leben it was, too. During one of the first recitations we got into a frenzied argument as to whether a



certain German word meant "tool" or "machine". It is to our great glee today that we recall that whereas the Hochwollgeboren of Worcester insisted that he would be triply verflucht if it were not "machine," it did turn out inevitably to be "tool", to the complete support of the future Secretary's contention. At no time since, however, has any argument turned out a similar way, so that you can see without much trouble that Bob is there with the goods. Our good wishes to him in his new and well-deserved responsibility could not be more sincere.

In the continued silence of Parker McConnell, the Solomon of Syracuse, there is one event that has missed proper note. (It is one of many, we are inclined to fear.) That is the marriage of Miss Elizabeth Chalfont, of West Chester, Pa., to William Thayer Rich, on June 20, in Philadelphia. Bill, whom we last saw just before the event, informed us that he and the Missus would go abroad immediately, and return in September, on and after the first of which Bill would be engaged in development work for the Hood Rubber Company. We have heard nothing since, so presumably all developments are good ones.

The Alumni Association recently turned over to us a letter from Ted Riegel, the last paragraph of which said, "I have been forced on account of my health to give up my work and home at Ware Shoals, S. C., and have moved to Larchmont, N. Y. I will be with the Bias Buff and Wheel Company, 342 Madison Ave., New York. As if some undiagnosable semi-tropical disorder had not had a fair shot at me, a yellow jaundice bug got hold of me and for the past two weeks I have been canary colored." Here are our regrets and hopes that when Ted feels a bit better he will send a line of news by a more direct route.

L. F. Hickernell, VI, who from time to time keeps us informed of the progress of events in his territory, wrote us some weeks ago on the marriage of Miss Dorothy Kirtland to George King, which took place on September 14, in Jackson, Mich. Hickernell was best man, or as he puts it, "acted in the rôle of second fiddler, supplying the after-time and passing the cigars. As George will undoubtedly testify, I also did my best to assist him and his bride in a quiet and unobtrusive getaway."

He goes on: "George and I are both located in the electrical engineering department of the Commonwealth Power Corporation of Michigan with headquarters at Jackson, a concern which furnishes the engineering work for some seven operating companies held by the corporation in Michigan, Illinois, Indiana and Ohio. We both extend a hearty invitation to all of the boys to stop off and see us at any time they may be in this part of the globe."

F. H. Morris, IX-B, supplies us with the following memorandum, which we print in the interests of truth, justice and public service: "In a recent issue a member of the Class jumped on the Bethlehem Steel Company with both feet, advising all to steer clear of employment with it. He forgets that in any large corporation one's immediate superior is the company. He was perhaps unlucky in his choice of departments. In fairness I want to report that I worked for Bethlehem for three years in several divisions, was uniformly well treated and only left to work for an old friend with what looked like a better opportunity. . . . Now, by the way I am back at the Institute taking graduate work in Course X."

Our folder is by no means empty yet, but by the quality of the typing we did on these pages this evening, it is going to take us a good two hours to make these pages at all understandable to the composing room, so we retire for a few more sennights.

ERIC F. HODGINS, General Secretary, Room 3-205, M. I. T., Cambridge, Mass

Course II

As we start our third volume of notes the inevitable idea crops out (you know — originality): "Let's make it the biggest and best ever."

The above outburst of enthusiasm, pep, and ginger is prompted by the newly appointed Traveling Secretary of the Class of '22. His enthusiasm, pep, and ginger suggests more than the above, but the last mentioned commodity has run out. Our highly efficient, much traveled, and still traveling Secretary, Heinie Horn, has spent the last two week-ends in Philadelphia collecting and distributing atmosphere, encouraging and sympathizing with the almost championship U. of P. football team. . . . Well, we had a good time and as Heinie was saying to Red after the Illinois game: "It's a long way between goal posts." Heinie isn't in Course II, so let's put him out of the picture with the notation that he has earned his thirty cents for the month by getting the Course Sec into the Illinois game through his close friendship with Red Grange.

Heinie brought the news that Tommy Thomson, with the Nash

Engineering Company, is living in Norwalk, Conn., daytimes, and New York City nights. While Canadian by birth, he is Scotch by preference. Tommy can get into more trouble in the big city in the dark hours of one night than he can get out of in a week of daylight in Norwalk. As evidence of this we must quote one little anecdote of Tommy's riding through to Bridgeport just because the conductor did not wake him up. Evidencing the fact that he has a good job, we must also add that he took a taxi back to Norwalk.

Our chronic squib as to Van Gieson's whereabouts now definitely locates him with the Loomis Products Company, Loomis, N. Y. This job carries the title of Experimental Engineer. That makes the boy an E. E. as well as an M.E. if that proves anything. Van is making rubber from discarded auto tires into useful articles, such as golf club heads, pulley blocks and unbreakable toothpicks. That's versatility for you. Wire for further information to Davis Ave. and

Prospect Rd., White Plains, N. Y.

Harry Pearson gets his picture in the paper every time he gets a new job. His last appearance in print was when he got married. Now he steps out and jumps into the shoes of assistant to the general manager of Boston Range, La., Properties of the El Paso Electric Company. This El Paso bunch know a good man when they get one.

While showering congratulations of one sort, let us revert to another. Ham Hammond (the announcement calls him Alden Mowbry, but we know better, they mean Ham) married Miss Dora Sprague of Cliftondale, Mass., on October 25. While in Hartford, Conn., with the Whitlock Coil Pipe Company, Ham had intimated just this thing. He is a man of his word. More congratulations and if Mrs. Hammond were around we would tell her what a lucky girl she is.

While we have not the latest news on the subject, we wish to announce that Ken Sutherland was engaged last summer to Miss Marjorie Taylor of Lynn, Mass. Come on now, old boy, send an announcement of the wedding at your earliest convenience and you can have a few congrats for the bride and yourself. Ken is with the

Perry & Elliott Company in Lynn.

A suggestion: the Class should concentrate its store of good wishes and congratulations for these and similar occasions so that we can see when we are running low. From all indications we will need quite a supply. However, the Course Sec presumes to make an anticipatory draft on this supply and consigns one carload to Walter Croft on the birth of Walter J. Croft, 3d, on or about September 7. Walter is now with the U. S. Envelope Company as superintendent of their Boston Plant. As soon as the supply warrants it, a second consignment of congrats will be forwarded on the strength of his new position.

When the Philadelphia Tech Club opened operations for the year, last month, one Course was right on deck with the old representation. Eastman Smith came down from Allentown, Dick Dickson was on hand for the food and cheering. Bryan Powell dropped in to look the crowd over. Eldor Mink was there to lead the cheering, and the Course Sec saw to it that they won't be missing from the next pow-wow. If we can scrape up enough boys we might organize a movement to make every meeting like this one. That means we want that entertainer to

do the Charleston for us all during supper.

Walter Kirley has forsaken the Underwriters Laboratories for new fields. Look for a slump in the U. L. He has gone into the building materials business in Newton, Mass., as the Walter T. Kirley Company, Inc. This calls for a draft on the best-of-luck storage.

Some time ago we received a write-up of the activities of our classmates from the Orient that was very interesting. Could not the boys from Latin-America do something of this sort? Old boy Art Ponce, Tom Subirana and Company have lots of dope that should

get into this column.

An apology is at hand: Web Maschal wrote a corking letter way back that has not been acknowledged. It was such a masterpiece of newsy personality that it crept out of the file and has just come to light again. As you remember, Web was with the Standard Oil, stationed in Monghyr, India (wherever that is). He opens by registering a kick and calling the writer an out-and-out prevaricator (in his letter he called it a liar). Well, aside from that he tells about attending a dinner in Calcutta for the "Round the World" American Airmen, but his part of the entertainment was to get sick. Over here we call it passing out. As a hunter he is nil. He had heard about Bengal Tigers and decided to look one in the eye. They would not look at him, so he had to waste good .58's on crocodiles instead. With all his education, he admits that the nations have been giving him the go-around on how many rupees and annas he should get for five hundred and twenty-eight kilos of kerosene. This place, Monghyr, E. I. R., India,

THE DISADVANTAGE OF POOR LIGHTING.

As thousands of our industrial plants are operating to-day with poor lighting and in some cases with extremely bad facilities, it would seem that the importance of the subject of lighting has not been given the serious consideration by those responsible for such conditions.

Poor lighting is one of the most serious handicaps under which a manufacturing establishment can operate. First of all, poor lighting is the cause of a large number of accidents in industrial plants; and it is singular that accident reports do not yet properly classify the hazards of poor lighting, which in many cases is the primary cause of an accident attributed to what is really a secondary cause. Safety engineers and other officials who make accident reports should always consider the condition of the lighting when working up a report of accident causes, for it plays an important part in a great many casualties and is apt to be overlooked. All accidents due to poor lighting are accidents of neglect, and are preventable. The poor lighting accident hazard is clearly chargeable to management and not men. It is a difficult matter to make such progress with Safety First in a plant which has neglected to provide one of the fundamental requirements of accident prevention-good lighting.

Probably no one single factor connected with the equipment of a plant so directly affects the efficiency and inefficiency as the quality and quantity of the lighting. The curtailment of production of all working under the disadvantage of poor lighting represents a big loss each day; the poorer the lighting the less able is the working force to function efficiently. Quality and quantity both suffer, representing a preventable loss wholly removable by improving the lighting.

Under poor lighting condition, we cannot expect and rarely do we find an orderly, clean factory. Darkened places encourage careless habits and workers are often led to deposit discarded articles or material which should be deposited elsewhere. The eyesight of those who attempt to use their eyes continually in insufficient light, below nature's demands, is often affected. Too much light, such as is furnished by bright, unprotected lights, is as harmful as too little illumination; both are fundamentally wrong. Nature's own illuminant, daylight, is unequalled for our requirements of lighting.

The eye is best suited to daylight in the proper quantity. Sun glare should be avoided, and in the darkened hours proper artificial illumination provided. Daylight should be utilized to the fullest extent. It is supplied free in abundant quantity for our use. Modern invention has supplied a means whereby the interior of buildings can be lighted by daylight, and all the advantages secured which is furnished by good lighting at the smallest cost.

Industrial buildings should have as much wall space as possible devoted to windows fitted with Factrolite Glass, which insures the maximum amount of daylight and which prevents the direct rays of the sun from passing through as it properly diffuses the light.

If you are interested in the distribution of light through Factrolite, we will send you a copy of Laboratory Report—"Factrolited."

MISSISSIPPI WIRE GLASS CO.,

220 Fifth Avenue,

St. Louis. New York. Chicago.

is quite a place. The entire American population sat around a three foot table for Christmas dinner. No, no one ever gets lonesome there. Web was at that time planning his leave to the States last summer, so this may all be ancient history. Again, let the apologetic tone assert itself for not having inserted the above before.

Now that our suggestion for a reserve supply of good wishes and congratulations has been accepted unanimously, we can accept all notices calling for the same. Let's have the stuff, boys, and Course II will just monopolize the whole Review.

JOHN E. SALLOWAY, Secretary, 3726 Walnut St., Philadelphia, Pa.

COURSE III AND XII

Livingston Wright has been sent to Bolivia by Yeatman and Barry, mining engineers of New York, to do some valuation work. He expects to return to Boston in the fall or early winter. - Metcalf is prospecting up in Fairbanks, Alaska. No doubt memories of crossing Harvard Bridge in past winters made Metcalf long for the colder regions of Alaska. Why not write and tell us some of your experiences?

Justheim is still with Anaconda in flotation research. is with the Edison Cement Company at Newvillage, N. J., as assistant to the President. We wish you great success, Eddie. - Hickey and McIver are at Santa Barbara, Calif., with their families. We're waiting to hear from them. - Cowie is assistant superintendent of the Southern Manganese Corporation at Anniston, Ala. - Alden Erickson is back in Boston doing some work with his father. He and his wife are living in Waltham.

While attending the American Welding Exposition at the Institute the other day, I heard from authoritative sources that George Ramsay has recently been appointed general foreman at the Blast Furnace Department at the Illinois Steel Works at South Chicago, Ill. This plant is one of the best of its kind in the country. We certainly congratulate you, Ramsay, on your success.

Erickson and I called on Rairdon this summer at the American Steel and Wire Company at Worcester, but missed him by a few hours. He had just returned from a trip through the middle west. Rairdon is

the happy father of a little girl.



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Solid and Stranded Conductor Canvasite Cord

Stage Cable Lamp Cords and Reinforced Cords

Automobile Ignition, Lighting and Starting Cables

Quality of product is our first consideration

BOSTON INSULATED WIRE AND CABLE COMPANY

Boston, Massachusetts

The Secretary had the pleasure of lunching with George Buttler one day this summer. George came up to Boston on a two months' leave to have his appendix removed. When I saw him he looked fine and I expect by now he is ready to challenge any one to a few rounds on the mat. George is superintendent of a mine in Mexico.

The Secretary begs of Course III and XII men to send in bits of news for The Review. If you are too modest to write about yourself

please send in something about some of the other fellows.

ROGER D. CARVER, Secretary, 65 Thetford Ave., Dorchester, Mass.

Course IV

Something tells us that tonight's bed-time story is going to be a cross between a wedding announcement and a picture post-card saying "x marks our window" and "wish you were with us." We are going to deal with two primitive and yet contradictory instincts which ever have surged in the human breast, and which have caused or made possible all manner of events in world history.

On the one hand, ladies and gentlemen, is the instinct to travel. The Nordics had it, and the Israelites had it. Hannibal, Columbus, and Professor Ferran felt its pressure, and unmistakable signs of it have been observed among rocking chairs, and our own coin of the realm. Always it is the desire to be elsewhere, and if you will be patient we are going to show you some beautiful slides of our own classmates getting where they "aint," and also on the return trip.

On the other hand is that tenderest and seemingly most potent of passions, the urge to mate. Mysterious and overpowering, it finds expression in all animate creatures, ranging from the common or garden variety of love, as credited to Adam and Eve, to the polygamous

predilections of the protoplasm.

Travel (A) and Mating (B), then, will be the two main subdivisions of our dissertation, and the exhibits will be very carefully chosen from

specimens dating back to 1922 B.C. (before Carlu).

Nowadays to think of travel is to muse of Florida, and to contemplate Florida means Slick Schley and Art Jones and Chubby Heitschmidt. For these three knights of the trestle-board are nowhere else, and at this very moment we can picture them in their respective money vaults with gold and silver piled high about them, and the midnight air rent with the unholy jangle of coin against coin. It long has been known that Slick felt a decided leaning toward urge B, but recently he has made also a strong plunge in A, having journeyed from New York to Baltimore and from that city to Florida in the last six months. Art Jones and Slick are working for the same firm in Miami, whose name we have not learned as we go to type, although we are willing to wager that it is King Midas and Co., or something to that

The case of Chub Heitschmidt offers one of the most eloquent testimonials to the lure of the Seminole state. It has been said that the average resident of California dreads to die because of the relative unattractiveness of Heaven, and yet our hero voluntarily quits the golden climate to become a 'gator. He is now in the Palm Beach office of Schultz and Weaver, his former employers, and already is reported to be suffering with the calloused hands of the chronic coupon clipper. More power to Slick and Art and Chub, say we, and we only hope that when they reach that inevitable state of affluence they will remember the poor draughtsmen and blue-print carriers in New York who used to be their classmates.

In order that the readers may be put in a good humor we come at this point to Marion Dimmock, who always will get his share of publicity so long as we are the author of these notes. Dimmy recently took a vacation trip down to Virginia and, from all available reports, was the lion of the occasion wherever he went. Says the Fredericksburg Star, in referring to a meeting of the local Kiwanis Club, "The guests for the evening were Thomas Embrey and Marion Dimmock. The latter, until recently a member of the firm [sic] of McKim, Meade and White, one of the best known architectural firms in the country, told of new designs for large city buildings which, he said he believed, would stamp American architecture as definitely as the Byzantine, Greek, or Roman was stamped." As the Richmond Bugle would say, he apparently has been keeping something from us. The Norfolk Noise dissents, however, with "there doubtless has been some slight exaggeration," in which the Roanoke Roast concurs, with the added warning that "all is not gold that glitters." We might explain that the story about Dimmy is placed under the head of travel because it is so far-fetched.

In New York the Rogers representation has been augmented by the

arrival of one G. Dewey Swan, who recently completed his apprenticeship with Maginnis and Walsh and has become connected with the office of H. T. Lindeberg of this city. Dozie has a nice apartment up in the Bronx, where he and Mrs. S. and little Patricia are all dug in for the winter. We used to refer to the latter young lady as Dewina, not knowing the truth in the matter, and we now wish to apologize and to tell the world that her name is Patricia.

In recent passenger lists of incoming steamers were the names of Margaret Kimball and Cassius Rice Amon, both fresh from European jaunts, and returning on different ships together. We have not seen Peggy, but we understand that she had the time of her young life, and we intend to see her soon and to get a personal report of the whole affair. But Cass we have seen, and also his water-colors which he made at Fontainebleau, and we wish to state right here that the stock of John Sargent is due to take a tumble when the public sees the work of Cassius Amon, the Kentucky boy prodigy. Cass allows that France is not so hot, except architecturally, but at the same time he shows a marked restlessness and ennui that lead us to believe that his thoughts are of some Yvette or Suzanne on the other side. This is only our own conclusion, however, and cannot be accepted as an affidavit.

All of which brings us to the other half of our letter, in which we shall discuss amours and kindred topics under the general head of Mating. The principal exhibits here are Mule Muhlenberg, Bob

Albert, and Chris Carven.

Believe it or not, the Mule has gone and done it! He has kicked over the traces, so to speak, and now it is Mr. and Mrs. Mule, of the Pennsylvania Mules. Last night Cass and Ray Sovey were in a midtown restaurant for the purpose of annexing a bit of food after batting out several carloads of scenery. They discovered there a large party of gay young people who were obviously celebrating the marriage of two of their number, and a closer inspection proved that our old friend Mule and his new wife were the center of all of the hullabaloo. They sailed today for a honeymoon in Europe after the best approved custom of the time, showing that profit in Pennsylvania architecture is no idle term.

And Bob Albert, erstwhile conductor of the Architectural Society Orchestra, and more recently faculty-member at George Washington University, has just received the coveted answer to that time-honored question, "Will you?" It seems that the virtuoso and Miss Eileen Alice Colby, of Washington, are engaged, and are threatening to be

married at an early date.

Which leaves to be chronicled the latest and most important step yet undertaken by that eminent playwright, artist and boulevardier, Christopher Coleman Carven. Man and boy we have known Chris for many years, in fact from the date of his authorship of that signal success, Patsy, and of his subsequent withdrawal from the Institute. After coming to New York we lived with Chris, watched him wax his moustache at night, and received many a sharp reprimand for the careless manner in which we dropped our shoes on the floor before retiring. We have seen him grow and develop, mentally and physically, and our pride was ill-concealed when we saw him safely and honorably installed as Curator of Extruded Shapes, with the Anaconda. But, ever ambitious and courageous, Chris reached out for new fields to conquer, and found them. In fact we have just received the nicest sort of announcement card - if you will just wait we'll send Junior upstairs to get it for you - intimating that Chris and Miss Mary Winslow Fraser of this city have serious intentions, and might be regarded as contemplating matrimony. Chris personally confirms the engraved dope, and promises that the wedding bells are going to ring out shortly after

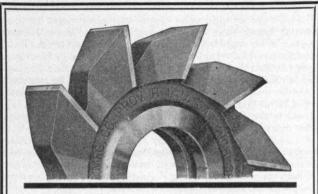
Well, this is good news about all of them. We want to congratulate them properly, but we have run out of words for such purposes. We warned in our last letter that future cases of this sort would receive only "Good Luck" by way of congratulation, and we must make good our threat. So "Good Luck" it is, and our feelings are as sincere as though we wrote two columns of stuff to say the same thing.

And that is that as far as our Class is concerned. In addition we can report that Ev Harman, '21, has elected to become a Monk in the English Benedictine Order, and is at present at Fort Augustus, Scot-

land, taking a course of training toward that end.

We are now at the end of our discourse on Love, Courtship, and Wanderlust. If any of our readers have questions of a personal nature which they would like to have answered in a strictly confidential manner, they may write us, stating the nature of their troubles, and we shall publish the answers in our next letter to The Review.

GEORGE S. HOLDERNESS, Secretary, 17 Gramercy Park, New York, N. Y.



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MODERN milling machines deliver exceptionally high power at the spindle and in order that this power be utilized efficiently for the removal of metal,

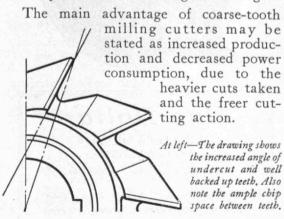
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the teeth allow the cutting edges to be well backed up, adding to their strength, which was not always possible with closely spaced teeth. Therefore the cutters are well prepared to handle deep and rapid cuts without danger of failing.



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COURSES VIII AND IX

To start the news, the usual summer crop of marriages has come through. Among these is the marriage of Miss Frances Munroe daughter of Mr. and Mrs. John Ingalls Munroe, of 30 Gardner Road, Brookline, to Lieut. Paul William George, on June 9. Lieutenant George finished West Point in 1918. Immediately after their marriage, they left for Manila, where Lieut. George is stationed for two years.

Another marriage of interest is that of Miss Meta McGowan Cantey to Lee David Warrender. Lee will be remembered by those who have roomed at the Technology Club in New York as a very congenial

fellow and a wizard at auction bridge.

We wish to express our sympathy in the death of Mr. F. William Krafft, father of Phyllis, who is now living in New York, having been married to Mr. Robert Mackenzie Dunning in July, 1923. Mr. Krafft had been one of Boston's leading violinists for years, having been con-

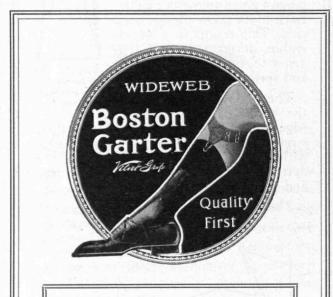
nected with the Boston Symphony Orchestra.

A very untimely death is that of Major Whitman R. Conolly at the Walter Reed Hospital on October 25. After graduation from the Citadel of South Carolina, he served in the Philippines, China, Japan and Mexico. In France he served during the World War as a lieutenant-colonel. After graduation in June, 1922, he entered the field artillery Advance School at Fort Leavenworth, Kan., where he was graduated in 1924. He was stationed at Fort Sam Houston, Tex., when stricken with his fatal illness. He was not only a good soldier but he was the fine type of true American citizen, who is useful to his country and whose great delight is encouraging and helping his fellow men. Our heartfelt sympathy is expressed to his widow, Mrs. Corinne Batchelder Conolly.

THOMAS H. GILL, Secretary, 1625 North 18th St., Philadelphia, Pa.

COURSE XI

Jim Stalbird, who has been with the North Jersey District Water Commission since graduation, sailed for Chile early this summer. He is associated with Dr. J. D. Long, a representative of the United States Public Health Service, who, I believe, has been loaned to the Chilean Government.



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of Velvet Grip Hose Supporters for All the Family

Stalbird's work is to deal with the numerous water treatment plants and establish a system of bacteriological laboratories throughout the country. With a typhoid fever death rate of six times normal, no bacteriological control of the various filtration plants, and with some of the larger plants not even using alum it can be readily seen that a big problem exists. Fortunately Jim isn't one of Singer's midgets, either physically or mentally, and it will be interesting to watch the progress of one of our classmates in such a fertile field.

A clipping from the Lawrence Telegram brings the first news of Jim Allen. According to the information received, he has been working in and about Lawrence since graduation. First, he was employed by a contractor on the construction of a municipal swimming pool and later was employed by the municipality on the construction of street im-

provements.

Information from reliable sources states that Howland recently resigned his position as a junior engineer with the Sanitary District of Chicago to become an assistant engineer with the State Department of Health at Hartford, Conn.

Last, but not least, early this summer Dan Moynihan announced the arrival of D. P. Jr., who, I believe, qualifies for the Course XI scholarship.

F. J. LAVERTY, Secretary, Town Hall, North Bergen, N. J.

Well, the football games are over and cruel winter is upon us. While hugging the stove (or radiator) and swapping yarns by the yard for an evening's amusement, why not write down a couple of them and shoot them along to your Course Secretary or the Gensec, so the rest of the gang can enjoy them? The only way most of us can keep in touch with each other is through The Review class notes and we want to make them as complete and as interesting as possible. The only way this can be done is with your coöperation, so let's all do our part and watch the results.

One more thing — there are still some alumni dues that aren't paid

R. E. Hendrie, General Secretary, 12 Newton St., Cambridge, Mass.

COURSE III

The gang seems to keep pretty well under cover. The amount of news that has come in certainly would make any town gossip commit suicide. We hope that when the next Review comes out some of you fellows will loosen up a little and drop us a line. However, a few items of interest have been unearthed.

Hardly had we seen in the newspaper the announcement of Phil Stearns' engagement than another announcement, this one engraved, arrived bearing the following inscription: "Mrs. M. B. Gannett announces the marriage of her daughter, Mary, to Mr. Philip Morris Stearns, on Thursday, the eighth of October, Nineteen Hundred and Twenty-Five, Weston, Mass." Congratulations and best wishes! Phil has attended the Harvard School of Business Administration, so we assume he is entering the business world. Let us hear from you, Phil!

When last we heard from F. A. Rood, he was living in Detroit, and working as a tool designer at the Chevrolet Plant of the General Motors Company. He evidently likes the work and intends to stick with the company. He planned to attend a school during the summer to learn more about the work.

Flaherty, according to Dame Rumor, was heading for Florida, a short time ago. Whether he arrived or not and what he is doing if he did arrive are matters for conjecture. We hope he will enlighten us.

That is all the dope for this time. Let's hear from you fellows.

BENJAMIN P. LANE, Secretary, 725 Magnolia Ave., Los Angeles, Calif.

COURSE IV

There was a day, oh Caliphs, when your temporary correspondent cherished visions and delusions. When most under the influence of these he saw apochryphal book store windows laden down with hopeful tomes of varying ponderosity but of uniformly gaudy wrappers. On every volume there was a golden title, on every volume a golden signature, and the signature was always his. Time and the frowning gods have changed all that, alackaday. And now he is willing to sit back in his upholstered office and read the works of other mightier pensmen. However, when the pathetic plea came from Bob Hendrie, for some kind of notes concerning the gallant deeds of his Class, he could not resist, and with due doffings of hat to Jim Henderson who has been such a silent amanuensis for so long a time, let us begin.

Gallant deeds we said, and gallant deeds we meant, for who may deny that members of the Class have sought romance and found it in sundry places? The curious thing about these cavaliers is that they are all drawn from the nether regions of Option 2 and that none of the crusaders have come from the empyrean heights where bloom the artists of the Beaux Arts.

One rainy day last spring there burst upon a quiet office at Tech an astounding vision. Booted and spurred, sombreroed and chapped, this constellation from a Southern world flashed across our sight. It was none other than Tex Beretta, returned from the successful making of revolutions in Mexico and now indulging in the more exciting task of promoting something or other, one does not remember just what. He told us a lot about it and it had something to do with tin cans.

Our thoughts flash back to gay Cathay. There Frank Hart sits on a tiffin mat and eats rice. For a while Frank worked for the American Bridge Company but we understand that he has now taken his teeth, his rivet compass and his wife to the other side of the world.

Then, perhaps most romantic of all is the tale of Reno. Wales, the misogynist, set sail for England. The first day he sat on deck alone. The next he was inveigled into conversation. At the end of his short voyage he made a flying trip to Surrey, Kent or somewhere and when he came back to this country it was with an English bride.

Some have gone romancing by traveling. There are the big chorusing four, Wadsworth, Hennessey, Berla and Setchell who Baedeker in hand made the grand tour. Julian tells us that, in the shadow of the Colosseum, Wadsworth sat on a stone and like his prototype, Gibbon, ruminated on Portland. There was a pageant of sorts in Paris but no hack race. How all of them got out of Europe alive is a mystery but apparently they did for Wadsworth is now pushing a pencil in Portland and two of the others are aiding Chris Carven's crew in making New York night life even more nightly. Setchell remains in Boston. By the way, Stan married Miss Martha Powell of Arlington in July. Congratulations, Stan!

Another tourist is C. V. Chamberlain, erstwhile sailor, pitcher, and officer. Shorty was married to Miss Powers of Cambridge, and, in pursuit of million dollar contracts for the Turner Construction Company he has traveled from Maine to Louisville and thence to Phila-

delphia where he is at present ensconced.

There was a night some two years ago when your correspondent and Lloyd Westbrook suddenly felt the call and procured the last two available uppers in the last train for Boston. That was the famous night, of course, when Cass Amon shocked New York by appearing in the second balcony of the Henry Miller Theatre in a more or less immaculate dinner jacket but that is as Kipling says. The point we are going to make is that that night Jake Lovell was elated at having a lower; that night Jake Lovell was dejected at finding somebody in his lower; that night Jake Lovell walked the aisles, which has nothing to do with the point that Jake Lovell having tried California for a second time decided on Europe. After stopping in Boston for a while, he is now sojourning on the Riviera.

Ida Adelberg, Brookfield, Eickenroht and Jim Henderson have all dropped rings in front of one altar or another. Lloyd is very happily married to Ruth Hampson also from the department. They are living in New York where Lloyd is the chief assistant of Mr. Ackerman. Ida, we are told, frequently lunches with her husband at the Vanderbilt. We had the pleasure of a morning-coated conversation with her one Sunday last spring. Ike is blessed with a daughter who would be the baby of the Class, except that Hessert and his wife, the former Miss

Collins, have a thriving son.

The rest is more or less phantasmagoric.

Al Schweizer worked in New York last year but has come back to the Institute to teach freshman design, graphics, and perspective. — Berla is said to be in the office of Goodhue associates in New York. — After graduation Newell Waters started off for Weslaco, Texas, where he disappeared. — P. B. Brown after selling almost everything in the world is now at something with the Norton Company in connection with floors where he says his practice in designing gardens is of great value. — Philomena Caputo has joined Monks and Johnson, an office which is almost as much a Course IV club, as that of McGinnis and Walsh, where Louis Skidmore hangs his hat since winning fourth in the Le Brun last spring. — Ed Conley was selling fire insurance at last word. — Graves, Tracy, and Dinty Moore bump into the writer once in a while at Thompson's Spa. They are all working in Boston. — Russell Collins who traveled one summer in Europe, then went to New York, has now gone West.

Stub Gelotte, the orangerie kid, has left the wide open spaces of Chicago and is back in Quincy-On-The-Cape, whence he commutes every day to Boston with the old needle and slide rule. He has designed some very interesting girders lately. — Ward who wrote such an illuminating thesis for Tex at the Institute had a little argument with his wife about going to California. They have gone. — Bill Ogg is advisory architect for the United Y. M. C. A. with headquarters in New York. — John Todd is heard from occasionally because of a prominent position in the Cincinnati Technology Alumni Association.

We must serve notice at this time that George has got to stop being Boswell for Sullivan. The latter has been part of George's material for too long. When last seen, he was at the Parker House doing some work for Guy Lowell. He said that the world is not what it used to be, that he had not seen a pageant in over two weeks, and that he was in a hurry to get back to Greenwich Village and his friend John Dos Passos.

Now we come to the time of closing and the author will state for himself that he found drawing rivets in a structural concern to be both unremunerative and uninteresting and so switched to the instructing staff of the Institute as assistant to Professor Spofford. This proved to be interesting at least. An enlarged scope which led him to writing for The Review and doing musical and dramatic notices for a Boston daily while working for his Master's degree as well as teaching a little English on the side has well filled up time for the last two years. Free once more, he is now dictating his letters at the Housing Company, 40 Central Street. Since probably one or two of you have not seen Boston papers regularly, we will add that the Transcript of May 4 carried the announcement of his engagement to Marjorie W. Gaines of Smith College and New York.

It is a principle of journalism that when nothing is to be said, much must be written. It is hard to dig up anything after a two years' lapse. Libels have been written in order that replies will serve to give material for the next letter which is due in two months. Please let us know the truth about your lives. We have undertaken this only temporarily until Jim can take it up again. We would hate to have an unmarked tombstone rising from the site of our untimely demise.

JOHN E. Burchard, 2nd., Temporary Secretary, 82 Brown Street, Brookline, Mass.



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COURSE VIII

Another school year has started and with it we find Bill Allis has joined our ranks as a research associate. For the past two years he has been enjoying a scholarship at the University of Nancy. — Bert Warren still spends his days at the Stute and is now a member of our research staff. On October 20 he addressed the physics colloquium on "X" Radiation.

Other members of the Course prefer to remain in hiding until a later date, which causes us to wonder how much later.

W. B. Greenough, Secretary, Room 4-415, M. I. T., Cambridge, Mass.

Course XIV

Once more your Secretary must pause in his daily thoughts of boilers, producers, turbines, B.T.U. and K.W.H. to scrape his desk clear of load curves, drawings, and figures galore and find space to write a note on the doings of our Course for the Gensec. It has been a long moon since we have heard much news of the fellows but this allows a pleasant respite to catch up in the flood of unpublished news that descended on the scribe near the close of the school year. In fact, Howard Cobb is about the only XIV, '23 man who has come across with a letter in a long while, and the Secretary has been so busy that he has not even answered it. But what else can one expect of a man just entered into the marital existence?

That calls to mind another feature of this letter. We trust that the fellows of the course were not unduly startled to receive announcements as follows: "Mrs. Samuel Arthur Young announces the marriage of her daughter, Violet Dewey, to Mr. Franklin Marion Gentry on August sixth, Nineteen hundred and twenty-five, Lexington, Ky." After a pleasant trip to Virginia Beach and thence by boat to New York, we took up our residence at 43 West 56th St., but have since settled down in an apartment at 51 East 17th St., Brooklyn, N. Y. That is an address you should note in your memorandum and when you come to Gotham give your Secretary a ring at the Edison Company and enjoy a dinner at the apartment. He will be glad to have you

come and will guarantee a fine time.

And now for a little story entitled The Wandering of One Howard Cobb: "My first year out of college was not an entire loss, even though it was not a financial success. I worked with Zenith Radio Corporation of this city (Chicago) for about five months as plant foreman. Then I hit Radio Corporation of America for a job and landed in their service station in Chicago. That's where I am now and I seem to be satisfied. I am at present dictating letters in answer to funny inquiries of various people regarding their sets and tubes. Also coaching the personnel on how to improve their system of testing and repairing. I am losing no time outside of working hours, but find plenty to do in the way of study. It all goes to pave the way. I find Chicago equal to my expectations as far as opportunities are concerned. It is an ideal place for a fellow to go into business for himself. This is a thing that I am considering seriously if I can ever get on my feet financially. If I were a wizard of high finance, I might scrape together a little money and put it to work, but as is, I must play safe." His address is 5920 Rockwell St., Chicago, and he would be glad to hear from any of the

After much preliminary procedure, Ed Roll was finally dated up for dinner at the Club some time ago with your eternal news hound. Ed has an illuminating job with Westinghouse Lamp Company at 150 Broadway, N. Y. where he is known as an Illuminating Engineer. His career began in the humble surrounding of a student course. During business hours he is principally amused by writing specifications for buildings. At odd times he studies the effect of X-rays on seed germination. In this connection he has distinguished himself by an article on the subject in The Tech Engineering News. Ed's chief avocation is reading The American Hg. Imagine that! The only comment he made

on his thesis was "bum." No ions ever migrated through glass but a few were squeezed out the other side by displacement. Too bad; think how much better a place this world of ours would have been if a few of those ions did leak through! Perhaps it's a bit stale to some of you but to others it might be news. Ed literally hopped his way to Europe the summer after his graduation. Elaborately groomed as a bell-hop on the S. S. America he shipped for Germany and after many wild and tempestuous days before the mast our roving seafarer reached Hamburg and finally Bremenshaven where the Sir Galahad went in search of his land legs. On Ed's information, Don Gardner is also with the Westinghouse Lamp Company but is at the plant in New Jersey where he is a development engineer working on street lamps and intercompany Mazda lamp tests. The two used to room together when Ed lived in Jersey and commuted to Manhattan. Don has joined the Boy Scouts and become assistant scout master of the Bloomfield Troop. Ed said that Don was interested in the Epworth League and Upsala College in some way not exactly made clear -- who would have believed it of a good confirmed bachelor like Don? He has a Chevrolet of the model used by the Carthaginians in hauling their horse to Troy but nevertheless Ed says it still goes, part of the way, at least.

Charlie Snow, you recall from a previous note in this column, was for a while in the research department of the Westinghouse Lamp Company but he decided that he wasn't exactly cut out for that type of work and so he took the student course for sales. He hoped to get located near Boston but as nothing was available at that time, he went on a lighting survey conducted by the National Research Council near Chicago. Lately, however, he has been seen around the Stute.

In due time G. G. Kearful made good his threat and surprised your Secretary by phone one day saying he was in the Village, whereupon arrangements were made for dinner at the Club, but when the time arrived he worked so fast that he had jumped to Niagara Falls on business. The next evening, however, he was back and we spent the evening talking everything from stock market to things unmentionable. The most noticeable change in G. G. is one of seriousness. Honestly, it would be interesting to know the underlying cause of it all. Who is she or what is it? A letter written upon his return to Boston said that he had resigned at the Edison Electric Illuminating Company and had accepted a position with Parke, Davis and Company in Detroit.

It certainly was great the way our own Ed Skinner carried away the

first prize Buick Coach at the Tech Banquet!

Except for that eventful trip to Kentucky in August, your Secretary has little to say in regard to his summer activities. During July he had the interesting job of superintending four series of tests on gas producers at a large open-hearth steel plant outside of Philadelphia. He intended to get in touch with Ben Drisko in Philadelphia but there was always so little time between trains to New York when commuting between the two cities that it was impossible.

And now, in closing, we send out the appeal for material for our

next appearance.

FRANK M. GENTRY, Secretary, 130 East 15th St., New York City.

I am going to talk about alumni subscriptions. It's the best subject I have to talk about. If you don't like it, I can hold you responsible on two counts. The first is that if you had written letters to your course secs in sufficient number they would have deluged me with notes and I couldn't have found this space to use. And the second count is that if you had subscribed to the Association in sufficient numbers it wouldn't be necessary for me to say anything about it.

The last report I received last year was to the effect that we stood number one on the list of classes. The first report which I received this year showed that we stood number eight on the list. What a come-



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down! We lost in the interim over 150 members and I hate to think that there are 150 men less reading these notes this year when I hoped to make it a banner year as far as the volume of notes was concerned. One good thing which the Association did however was to cut down on the total number shown in our Class which causes a corresponding decrease in the number necessary to get back to the point where we started. But to get back there we must have eighty-seven new men at least. Your course has a quota based on its unsubscribed membership and if you aren't in, get in and if you know of some one who isn't in, get him in and if you can't do either try to find some way of helping us reach those 150 men so that we can get at least eighty-seven. That number is a conservative estimate and we can't be satisfied with anything less. I should here like to publish the present standings of the courses, the number of members, the percentage members, the ranking of courses, the quotas and other information. Space, I am afraid, does not permit. This data, however, has been sent to all the course secs and assistant secs and they no doubt have forwarded excerpts of it to you in their letters.

I have one or two small newspaper items which aren't connected with any course appearing in this issue and will therefore include them here. From the Boston Transcript of October 19: "The wedding of Miss Eleanor Alberta Grant, daughter of Mrs. William Wiley Grant of 9 Brookford St., Roxbury, and Lachlan Ward MacLean, son of Dr. and Mrs. H. Stuart MacLean of Richmond, Va., will take place this evening at Bethany Baptist Church in Roxbury. . . . The bridegroom is a graduate of Washington and Lee University and also was graduated from Massachusetts Institute of Technology, Class of '24 (Course VI). He is now a supervisor of electrical train control for the Philadelphia and Reading Railroad. . . . Everett Sweet, M. I. T. '24 will be the best man."

From the Cambridge Tribune: "I beg leave to report on the activities of your committee," Mr. Stoughton Bell reports for the Mosquito Committee of Cambridge, "for the summer of 1924 an inspector, Philip K. Bates, a student at Massachusetts Institute of Technology was employed to search out any possible mosquito breeding places on the borders of the city. Mr. Bates found some very bad breeding spots principally on the south side of the Charles." Phil, you know, is Course VII and is still doing graduate work. The account of his labors here is a little ancient but none the less interesting.

R. R. LeClercq, XII, writing from the Katanga district in Africa, says that he is still in the thick of geology and beginning to see some light with the hope that in the moderately distant future he may be able to determine the relationship between various Tectonic disturbances and the coming of the rich copper deposits, and thereby formulate some rules leading toward the discovery of new copper deposits by his company. In spite of all their prospecting the Katanga Company so far has not located any copper deposits beyond those which were known and worked long ago by the natives. He has finished the mapping in detail of 600 square miles of country. A new and interesting form of sport to him is to go out at night with a carbide lamp on his cap and shoot antelopes. To get this game requires prompt action, aiming just below the eyes. An added zest to the operation is lent in that sometimes instead of an antelope it is a leopard that appears and then one has to be more careful. Le Clercq's letter was written early in August, about two months before the beginning of the hot season and at that time the weather was still fairly cool and very windy. He had not seen P. C. Putnam, '23, and his wife, '21, since they went to Busanga but he had frequent reports from them that they liked the place and were enjoying life in Africa.

And now that my own little stock of news is exhausted I will turn you over to your course secs.

H. G. Donovan, General Secretary, 80 Farmington Avenue, Hartford, Conn.

Course I

Usually, when your Course Sec sits down to compose this monthly rendition the result is somewhat like the old phonograph record called "No news, or what killed the dog." A fertile imagination is the underlying factor. But at this sitting the inspiration seems to be lacking. Perhaps it is because of the fact that at the present time the first copy of The Review has not appeared and you have not felt the urge to obey that impulse. By all that is holy, please drop me a line telling where you are, how you are, and if you are all alone too. Then I'll have something to write about.

By way of filling up space I want to call your attention to the skeleton roll-call which appears when one looks over the list of our Class

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for those who are maintaining their membership in the Alumni Association. Our Gen sec, Hal Donovan, wants to bring the standing of our Class to the top rung of the ladder. We now hold eighth place. In order to make first, Course I must supply an additional membership numbering eight. This appeal probably does not hit home to you for being a subscriber to The Review you are undoubtedly a member of the Association. But in your contacts with coursemates please pass the word along so that we at least can do our share to bring the Class up to its proper position.

JOHN D. FITCH, Secretary, c/o C. T. Main, Engineer, 200 Devonshire St., Boston, Mass.

Course II

With the beginning of the school year your Secretary found himself among those registering at the Institute for a graduate course in Mechanical Engineering, after having made definite statements that such would never be the case.

H. C. Moore is an instructor in the Engineering Laboratories and at the same time is doing some special work in the Photo-Elastic Laboratory. — John L. Del Cardayre was in Boston for a day a short time ago and tells us that he graduated from Columbia University last year with a degree in Journalism. — C. A. Redden, who was an Instructor in the Engine Laboratory last year, is now located in Alaska with a mining company in the capacity of a heat engineer. — Bobbie Reid is now a merchandising representative for The American Blower Company and is covering their New England territory. He spent several months in Detroit and some time in New York before returning to Boston.

One of our number is already becoming distinguished as a scientific author. It is none other than Homer Davis who has already succeeded in getting an article published in *Radio Broadcast* and expects to make it a series of articles. Homer is working as a designer for a large machine shop down in Memphis, Tenn.

A very interesting letter has been received from George Anderson. At the particular time the letter was written he was tracing a freight car for the Bucyrus Company from South Milwaukee to East Prairie,

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Mo. George is doing considerable construction work for his Company on steam shovel installations, and so on.

Myron Freeman is working for Jackson and Moreland, Consulting Engineers, in Boston. And he informs us that George Glennie is with The Employer's Liability Insurance Corporation doing power plant work. — E. V. Martin is connected with the sales department of The Griscom-Russel Company, New York City. This company specializes in power plant equipment. — Elden Pollock is with the Manufacturer's Appraisal Company and has just finished working on the installation of the Somers System of land valuation in the city of Jamestown, N. Y. Pollock mentions that the last information he had about Benny Rosseau was that he was an oiler on the S. S. Reliance out of New York. — E. A. Abdun-Nur is teaching Engineering and Physics in The American University at Beirut, Syria. — Nesmith Thompson received his degree last June and has been spending a good portion of his time since, vacationing in Maine.

These notes are not all that could be desired, but now that we have another year before us there is a chance for redemption. We know that you like to hear about the other fellows so just fulfill their desires by letting them hear about you, and I am sure they will return the compliment.

Last but not least, information has come to the Secretary that Everett Thomas was married on October 3 to Miss Catherine Davies of Scranton, Pa. Congratulations. — Also on October 3 the marriage of Mr. Perry Maynard to Miss Helen Frances Boothby took place at Boston. More congratulations!

Ed Hanley left the Continental Wood Screw Company in New Bedford about three weeks ago to enter the Graduate School of Business Administration at Harvard, where he is going to soak up all the Industrial Management that he can. School seems to have the better of him, although he has a real reason for going to Harvard. - Hunt Wardwell is still with the Continental Wood Screw Company. He is now acting as their cost accountant. Lou Porter who was in our Class and Course for three years, but who left the Stute for a year and then graduated with '25, has taken Ed's place at the Continental. — Jack Stanton, who graduated with us in IX-B is now in Chile with the Special Commission on Boundaries, Tacna-Arica Arbitration, Tacna. This is the commission sent down under General Pershing, by the Federal Government, to straighten out that boundary dispute which has existed for the past forty or fifty years between Chile and Peru. -Spud Sullivan is still in Cleveland with the National Carbon Company. He has become ambitious since graduating and is now attending law school in Cleveland in the evening. — From the Boston Globe: "Miss Dorothy Johnson Gill of Northampton St. and Kendal B. Castle, Jr., of Rochester, N. Y. were married here to-day [September 26, in Holyoke]. The bridegroom is a mechanical engineer, employed by the Rochester Gas and Electric Company.

FRED S. HUNGERFÖRD, Secretary, 259 St. Paul St., Brookline, Mass. E. J. HANLEY, Assistant Secretary, 29 Park Ave., Whitman, Mass.

Course X

While on the job the other day I saw Bill Levi go by in a car. As he was held up by traffic a little further on I caught up with him. He found out what I was doing, but I didn't learn what he was up to, for the traffic moved on and I had to return to the side of my boss. He (Bill) is just like the rest of these Course X men; you can never find out what they are doing. You all know what I am doing. I am writing and even that is more than any of you have done in a month. Be kind to dumb animals, fellows, and let's have some news.

WILLIAM B. COLEMAN, Secretary, 40 Morningside Ave., New York City.

Course XIV

The notes for this course like those of the Class are going to be a little meagre this time. I can offer excuses for my part of it but I haven't yet found a good excuse for the courses as a whole. Perhaps the other course secs have as good an excuse as mine, which admittedly is a little weak, but they haven't told it to me yet. My excuse is that just about the time I got ready to send out letters to the fellows a tooth of mine started sending out all kinds of distress signals with considerable static. I have a couple of letters which I received last month too late for publication and hence I shall try to enlarge upon them a little.

I really don't know which came in first nor which to give preference to here. Both were two pages in length but since Eddie Lindstrom was

able to crowd more words onto his pages I will let him speak first and then let Jack Walthall have his turn. Evidently I am putting an added value on length and I hope you will all take the hint. Eddie after living all his life in and around Boston has deserted and gone West although not so far that he won't be able to get back for the reunions. He has picked out the Kodak City as his world to conquer and has started in in a small way upon this huge job by taking a place with the Rochester Gas and Electric Corporation in their distribution engineering department. He hadn't been there very long when he wrote me and the details furnished were consequently very meagre. However he does think that Rochester is a very pretty little city and hopes the animated scenery is as lovely as the city's other renowned scenery. His address was, but I can't say that it is now correct, 41 Berry St., Rochester, N. Y.

Jack W. is still with his first love, the Aluminum Company of America and the ranks of Tech men in Badin have swollen by the addition of two new Techites, one from Course X and the other from X-A, although he did not tell me their names or Class. Whenever Jack writes he always tells me a little about the aluminum industry. The main difficulty at present is the big absence of rain this past summer which has curtailed operations due to the fact that they are dependent upon water power. However, it is expected that this condition will be remodied by December when a rainy season begins. Badin seems to be one of the few places where a lot of rain is always welcome. Jack's address is Box 253, Badin, N. C., and from what he says I don't think many of his coursemates are helping him earn a dividend upon his box-rent.

There is only one other member of this course of whom I know anything new and that is the Course Sec himself. And there really isn't much new about him except a few clothes, The clothes were the result of considerable overtime work put in during the months of August and September, the proceeds from which were converted into wearing apparel. Overtime is quite handy for him now and as he is working for a concern where the regular time stops at 4 p. m. this offers a good opportunity to get a couple of hours in before dinner time. Nothing else new, however. Same job, same company (the Travelers), same department, the liability underwriting, no richer, no poorer, not married, no better prospects of being thus entangled, not much older, and only a very little wiser. Any changes in these conditions will be promptly recorded and I hope you will do the same.

I am pleased to note that this course has a greater percentage of its members in the Alumni Association than any other. Still we need two more new men who haven't signed up this year to complete our course quota and put our Class at the top of the list in point of percentage subscribing so that we can better defend our contention that that is the position we occupy in prestige. If you see this and your conscience troubles you, just send three dollars to the Alumni Office, Room 3-209, and receive my sincerest gratitude. All previous statements in regard to benefits derived still remain in force as of last year.

H. G. Donovan, Secretary, 80 Farmington Ave., Hartford, Conn. T. E. Mattson, Assistant Secretary, 43 Riverdale St., Allston, Mass.

Course XV

We have at hand figures showing the standing of the Class and the individual course standing in alumni membership. Our Class has dropped from first to eighth in rank since last year. Of the 141 members of Course XV, forty-eight have paid their three dollars to the Association, leaving ninety-three who have not paid — or a percentage

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No. 1004. Several first-class ceramic research engineers are urgently needed by a company located in Pittsburgh and men who can qualify for the positions open will find ample opportunity for increasing their earning capacity. Men are desired who have had experience chiefly in refractories.

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No. 1006. A field engineer preferably with architectural or construction engineering training and experience is needed by a large corporation which operates plants in various cities throughout the United States. A man between 28 and 30 years of age, preferably unmarried, will be preferred as there will be considerable traveling involved. The position deals with different lines of general business including real estate transactions, legal matters, contracts, specifications, distribution problems, etc. Salary will be arranged in accordance with experience and general ability of successful applicant.

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of thirty-four paid; fourth place among the courses in our Class. We urgently request all of you who have not paid to do so. We must all cooperate to bring this figure up. After all, fellows, isn't it a pretty small price to pay for keeping our contact with the Stute? For many of us, our membership in the Alumni Association is our only way of showing that we are still interested in Tech and are willing to help. So let's all pitch in and bring up our standing. Remember that this is a matter which concerns our Class as a whole, and one in which our Course must help. If you haven't paid and have three dollars in the toe

of the old sock send it in at once. We had the pleasure of a talk with Blay Atherton not so long ago. He is mighty interested in his work with the Jordan Marsh Company but more so in the new arrival in his family. - Jimmie Enright and Bill Rowe are also proud fathers. Jimmie is in Akron with the Firestone Company as you know and Bill is here in Cambridge with the Standard Plate Glass Company. Al Sparrow is also with the latter company. - Ernie Bizzozero is mixing paint for the E. and F. King Company here in Boston. - Nish Cornish has left the west coast and is with the General Fireproofing Company at Youngstown, Ohio. -Pret Littlefield is now with the U. S. Aluminum Company at Edgewater, N. J .- John Spaulding has succumbed to the lure of Florida and departed thence. John left with the remark that he would return either in a Rolls Royce or on foot. - Rumor has it that Dave Evans has been winning prizes, due to his literary ability, but news from New Jersey has been meagre and we don't know just what Dave has done.

- Sid Doyle has favored Boston with his presence once again and the old town is quite lively. Jack Lehman has also been here for a short visit. - Don Jennings has been engaged in a prospecting campaign in Montana and as a result has leased an old gold-silver mine at Stemple, Mont., a mine with an excellent record but which hasn't been worked since 1898.

From the Boston Transcript of September 22: "Mr. and Mrs. Herbert Fairfield of 30 Embankment Road, Boston, and Prout's Neck, Maine, announce the engagement of their daughter, Miss Katherine Fairfield to Charles Frederic Lyman, Jr., son of Mr. and Mrs. Charles Frederic Lyman of Dover. . . . During the war Mr. Lyman was chief radio operator on the United States Transport Mount Vernon."

Don't forget our duty, fellows, if you have to borrow the three dollars, do so - from anyone but your Secretary. There will be more in our next appearance.

I. O. HOLDEN, Secretary, 110 Monroe Rd., Quincy, Mass.

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Charles R. Muhlenberg, Secretary, at 22 East 38th Street, New York City.

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE, MASSACHUSETTS



HE Massachusetts Institute of Technology offers Courses, each of four years' duration, in Civil, Mechanical and Electrical Engineering; Naval Architecture and Marine Engineering; Mining Engineering and Metallurgy and Geology and Geological Engineering; Architecture and Architectural Engineering; Chemistry, Chemical Engineering and Electrochemical Engineering; Biology and Public Health, Sanitary and Municipal Engineering; Physics, General Science and General Engineering; and in Engineering Administration. These Courses lead to the degree of Bachelor of Science.

To be admitted to the first year class, applicants must have attained the age of seventeen years, and must satisfactorily fulfill entrance requirements in Algebra, Plane and Solid Geometry, Trigonometry, Physics, Chemistry, English, History, and French or German and one elective subject. Examinations are required in all subjects except Chemistry, History and the elective, the requirements for which are fulfilled by the

presentation of satisfactory certificates. A division of these entrance subjects between different examination periods is permitted.

Entrance examinations are held at the Institute in September. In June, applicants will be examined by the College Entrance Examination Board in Boston, New York, Philadelphia, Chicago and many other cities in America and Europe. A circular stating times and places is issued in advance by the College Board.

Graduates of colleges and scientific schools of collegiate grade, and in general all applicants presenting satisfactory certificates showing work done at another college corresponding to at least one year's work at the Institute, are admitted, without examination, to such advanced standing as is warranted by their previous training.

Graduate courses leading to the degrees of Master of Science, Master in Architecture, Doctor of Philosophy and Doctor of Science are also offered. Special research Laboratories of Physical Chemistry, Applied Chemistry and Science have been established.

Publications

The Institute publishes a number of bulletins designed to acquaint prospective students and others who may be interested with its requirements, facilities, instructional aims and subjects. These will be mailed gratis and post free upon request.

For general information, requirements for admission, brief description of courses, etc., ask for Bulletin A.

For schedules of courses and detailed description of subjects of instruction, ask for Bulletin B.

For the announcement of courses offered in the Summer Session, ask for Bulletin C.

For information on Advanced Study and Research, ask for Bulletin D.

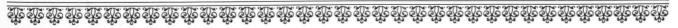
For the report of the President and the Treasurer, ask for Bulletin E.

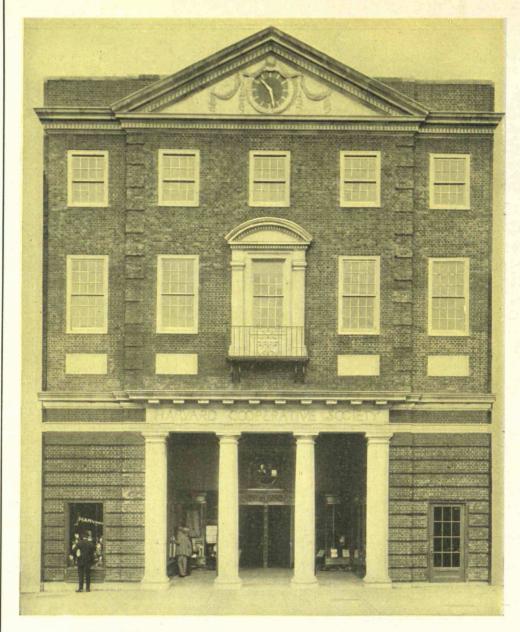
For a popularly written explanation of Engineering Course content, ask for Bulletin Y.

For these bulletins, or for any other information, address

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For six years the Society's dividend rate has been maintained at 8% on charge purchases and 10% on cash purchases. On this last year's business dividends to the amount the Technology Branch or the of \$59,200 have been distributed.

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